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AUTHOR Morse, Dian; Minugh, Carol J.
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ABSTRACT

This policy and procedures manual, one in a series of nine staff development guides prepared by the Philadelphia School District, clarifies roles and responsibilities of various staff members and parents in providing programs to meet the career and vocational education needs of mildly to moderately handicapped students. This manual is designed to provide a conceptual and programmatic overview of the career planning and vocational programming processes for handicapped youth in the school district. Major emphasis in the manual is placed on the functions of the Child Study Evaluation Team (CSET) and the development of the Individualized Education Program (IEP) as structures for conducting the assessment, evaluation, and follow-through for vocational placement and supportive services. The manual also includes information on full-service implementation of vocational programming for handicapped youth and the procedures necessary for monitoring and evaluating programs. The manual further identifies the definitions and legal implications that provide the guidelines for programmatic structure and focuses on the process and procedures necessary to provide career planning and vocational programming for handicapped youth. Also included are a glossary, several appendixes, and a comprehensive bibliography containing state-of-the-art reference materials. (KC)

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POLICY AND PROCEDURES MANUAL

Career Planning and Vocational Programming for Handicapped Youth

Prepared by The Alliance for Career and Vocational Education
The National Center for Research in Vocational Education
The Ohio State University
1960 Kenny Road
Columbus, Ohio 43210

Sponsored by the Board of Education
The School District of Philadelphia
21st and Benjamin Franklin Parkway
Philadelphia, Pennsylvania 19102

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FOREWORD

The issues of civil and human rights for the handicapped have had a major effect on our society. Several pieces of federal legislation, later adopted as state regulations, have been at the forefront of change in the delivery of special education services. This legislation includes The Education for All Handicapped Children Act (P.L. 94-142), the Vocational Rehabilitation Act, Section 504 (P.L. 93-112), and the Amendments to the Vocational Education Act (P.L. 94-482).

All of these mandates describe our society's commitment to quality programs for handicapped students, including special attention to career and vocational development.

Each law also outlines and requires adherence to the concept of "least restrictive environment"--the notion that, to the maximum extent appropriate to their needs, handicapped students should be educated with their nonhandicapped peers. A handicapped student should not be placed in a segregated or restrictive setting unless it can be shown that the student cannot benefit from a less restrictive program, even with the use of supplementary aids and services.

These manuals have been developed to clarify roles and responsibilities of school staff and parents in providing programs to meet the career and vocational education needs of mildly to moderately handicapped students. I believe that you will find the materials extremely helpful. I commend their use and application in the interest of forwarding our commitment to the provision of outstanding educational opportunities for our exceptional students.

Michael P. Marcase
Superintendent of Schools
The School District of
Philadelphia

PREFACE

The Division of Career Education and Division of Special Education of the School District of Philadelphia are proud to introduce this series of manuals on criticial aspects of career education for exceptional students. Our dialogue in planning these books has strengthened our conviction that including career education instructional goals at every grade level is essential to the development of an appropriate program for all children.

The manuals reflect the school district's efforts to implement the following Career Education goals for exceptional students:

1. To ensure that all students leave the Philadelphia schools with the skills, knowledge, and attitudes necessary to gain and maintain employment and/or to continue their education or training to the fullest extent possible.

2. To make all career development and vocational programs accessible to all students without regard to sex or other traditional occupational stereotypes.

3. To ensure the accessibility of all career development and vocational programs to students with handicaps.

4. To increase school-related work site experiences and employment opportunities for in-school youth.

5. To ensure that occupational training programs respond to the present and projected employment needs of the community.

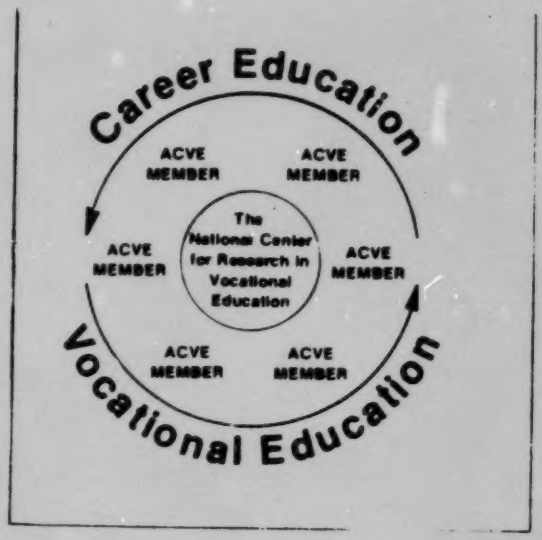
Faith in the exceptional student's capabilities is critical in achieving these goals. Every student can learn, and it is incumbent upon us as educators to ensure that students learn to the best of their ability. An increased awareness of career education programs and our related roles--as administrators, teachers, counselors, and parents--will foster the development of an educational program that realizes the potential of each exceptional child. It is with this approach in mind that these materials have been developed, and we urge you to use them to improve instructional programs for exceptional students.

Win L. Tillery
Executive Director
Division of Special Education
The School District of
Philadelphia

Albert I. Glassman
Executive Director
Division of Career Education
The School District of
Philadelphia

INTRODUCTION

The Alliance for Career and Vocational Education is a consortium of school districts from across the country, working with the National Center for Research in Vocational Education at The Ohio State University. The consortium was formed so that school districts and the National Center could work together on common priorities in career and vocational education.



This cooperative arrangement creates a "multiplier effect" whereby each school district, in addition to the outcomes and services for which it has contracted, also receives the products developed for other Alliance members. Thus, school districts are able to develop and implement comprehensive programs at far less expense than would be possible by working alone. The outcomes of the Alliance research and development efforts have enabled member districts to provide increased flexibility in career and vocational education programs that address the needs of all students. Alliance training programs and materials have also enabled members to expand from traditional forms of instruction to the development and management of individualized programs.

The enactment of legislation and the subsequent development of regulations and guidelines affecting education for handicapped individuals have had a major impact on vocational education and its collaboration with special education.

The School District of Philadelphia contracted with the National Center for Research in Vocational Education for assistance with the development of a comprehensive staff development plan for special and career education. This project resulted in the development of the Policy and Procedures Manual and eight role-specific training manuals that comprise a comprehensive staff development package for collaboration between special and vocational education in the School District of Philadelphia.

The materials have an overall theme of "Career Planning and Vocational Programming for Handicapped Youth." The Policy and Procedures Manual is designed to provide a conceptual and programmatic overview of the career planning and vocational programming processes for handicapped youth in the Philadelphia school district. The manual communicates Philadelphia's commitment to appropriate career planning and vocational programming for handicapped youth. The eight training manuals are designed to be specific for the following:

Administrators and Supervisors
Principals
Teachers
Supportive Service Personnel
Psychologists
Student Evaluation Personnel
Counselors
Parents

Each manual contains an overview of the opportunities for each school staff faculty or faculty members to assist handicapped youth in career planning and vocational education. In addition, the manual contains role-specific responsibilities, including activities and projected outcomes.

Major emphasis is placed on the functions of the Child Study Evaluation Team (CSET) and the development of the Individualized Education Program (IEP) as structures for conducting the assessment, evaluation, and follow-through for vocational placement and supportive services. The manual also includes information on full-service implementation of vocational programming for handicapped youth and the procedures necessary for the monitoring and evaluation of programs.

The Policy and Procedures Manual further identifies the definitions and legal implications that provide the guidelines for programmatic structure and focuses on the process and procedures necessary to provide career planning and vocational programming for handicapped youth. Also included are a glossary, several appendices and a comprehensive bibliography containing state-of-the-art reference materials.

The Policy and Procedures Manual and role specific manuals are to be presented as a part of a comprehensive staff development plan designed to assist school staff in providing career planning and vocational programming of the highest quality.

Acknowledgement is given to the following people from the School District of Philadelphia who served as a task force in the development of this manual: Morris Reid, Joe Rubin, Ross Frazier and Gloria Bowe. Special acknowledgement is given to Georgia Zeleznick and Rhe McLaughlin, Division of Special Education, who facilitated the preparation of all the manuals in this series.

To the staff of The National Center for Research in Vocational Education, The Ohio State University, acknowledgement is given as follows: Dian Morse and Carol Minugh, principal writers; Linda Buck and Janie Connell, principal researchers; Regenia Castle and Beverly Haynes, technical assistance; and Janet Kiplinger, editor.

PHILADELPHIA'S COMMITMENT
TO APPROPRIATE CAREER DEVELOPMENT
AND VOCATIONAL PREPARATION FOR
HANDICAPPED YOUTH

Overview of Career Education

Career education is defined as the totality of learning experiences through which students learn about and prepare to engage in work as part of their way of living. Although this concept initially raised concerns about implementation of career education in the schools, the overall goals of career education were accepted. Indeed, career education reemphasizes the traditional goals of all education, as the growth of those attitudes, habits, and skills recognized as necessary for youth to reach their maximum potential as productive adult citizens. As a concept, career education recognizes the potential worth of all children; as a process, it ensures optimization of that potential.

Definitions of career education are numerous; each definition, however, contains several common elements. For operational purposes, the School District of Philadelphia has adopted the following definition:

> Career education is a concept that endeavors to restructure the formal educational process to provide students with the opportunity to gain knowledge, understanding, and experience in career development concepts.

Career development can be explained as "a process that is part of human growth and development, that extends throughout life, and that involves career awareness, exploration, decision making, planning, implementation, and maintenance designed to make work, paid and unpaid, a meaningful part of an individual's total

life-style. (Davis and Ward, 1978)

Thus, career education is extended to every child from kindergarten through twelfth grade and fosters the infusion of career/vocational attitudes and skills throughout the entire pupil curriculum. Further, these experiences are designed to be free of bias and stereotyping with regard to race, sex, age, economic status, or handicap.

The School District of Philadelphia's career education plan is used to provide career education instruction at all grade levels, for all students, by infusing relevant competencies into the established curriculum in a developmental sequence. The career education curriculum includes career awareness, exploration, preparation, and placement as major themes. The school district's career education program considers the full range of skills needed for independent living. Thus, career education complements offerings of specific vocational education courses.

The unique importance that career education has for handicapped students is described in subsequent sections of this manual.

Overview of Vocational Education

Vocational educators share both the concern and responsibility for appropriate educational planning for handicapped youth. From the many existing definitions of vocational education, Phildelphia has adopted one that encompasses the major components of the others and is in accord with the mandates of both the federal government and the Pennsylvania Department of Education.

> Vocational Education is that body of academic education and occupational skill training offered at less than the baccalaureate degree level which prepares persons for productive employment as a major role in their pursuit of a satisfying, contributing and rewarding career.

Vocational education is an integral part of a comprehensive educational system that benefits the individual and society by contributing to the economic and social growth of each. Vocational education provides training in an area of career pursuit, and should be made available to all who want and need it without regard to race, sex, religion, or handicapping condition. In addition, vocational educators are concerned with developing an individual's appreciation for the work ethic. This work ethic is actualized by the acquisition of attitudes, habits, and competencies required to secure salable employment and consumer skills. For the individual, vocational education is used to bridge the transition from school to work. For society, vocational education is used to provide a trained cadre of human resources.

All vocational education programs stand ready to serve any individuals who, for any reason need training or retraining to enter or maintain employment. Priority for training should be given to the handicapped and disadvantaged.

The decision to place a handicapped student in a particular vocational program should be based on the recommendations of the Child Study Evaluation Team (CSET) as documented on the Individualized Education Program (IEP) plan. It is of critical importance to include vocational educators as integral members of the CSET team. Handicapped students in vocational programs may require supportive services that may include adapted learning materials and supplemental support from a variety of professionals and paraprofessionals. The designation of appropriate supportive services is a responsibility of the CSET.

Students should be instructed and encouraged to advance to their maximum level of ability and interest. For some students, single skill competency may be achieved; other students may be able to achieve the full range of competencies included in the curriculum. Care must be taken to ensure that all students are placed in an environment conducive to success.

Overview of Special Education

Special education, as defined by the Pennsylvania Board of Education, is a basic education program adjusted to meet the educational needs of exceptional persons. Exceptional persons in

Pennsylvania are those persons evaluated and found to be hearing impaired, mentally retarded, physically handicapped, learning disabled, brain damaged, speech and language impaired, socially and emotionally disturbed, visually impaired, severely multihandicapped, or mentally gifted and talented.

In order to identify and access instructional programs including career education program components and vocational education courses for special students, the school district utilizes a multidisciplinary evaluation and placement approach. The Child Study Evaluation Team (CSET) is charged with gathering objective educational information and making appropriate recommendations for program placements. This information is used in the development of the Individualized Education Program (IEP) plan, a document that defines an appropriate program of education for each special student and guides the individual's special education instruction.

Program placements recommended for handicapped students must be in the least restrictive environment. The "least restrictive environment" (LRE) is defined as the placement option that realizes the match between the learning needs of the student and the conditions of the educational environment, while providing the student with appropriate integration with nonhandicapped students.

Related services in special education are designed to enable the student to participate in and profit from an appropriate education program as described on the IEP. These services may

include but are not limited to transportation, occupational and physical therapies, psychological evaluation services, recreation, physical education, counseling, school health services, parent counseling and training, medical services for diagnostic and evaluation purposes, and the use of adapted equipment and materials. The designation of appropriate services to support the student's educational program is also a CSET function.

Career and vocational preparation are clearly a major focus of special education curricula at all levels of programming. Whether expressed through life skills, survival skills, or traditional academic training, a constant goal of special education services is to provide training and programs necessary to enable students to become economically and socially self-sufficient, independent, and contributing members of society.

The concept of related services means something far different than the provision of specific and isolated services, therapies, and/or guidance to handicapped youngsters "in addition to" their classrooms or vocational setting. Best practices call for related services to be planned and delivered in an "integrated," comprehensive education model program designed to develop the potential of handicapped students. Related services are planned and delivered in concert with the students' instructional programs.

Linkage

Overview

The delivery of quality career planning and vocational programming for handicapped students in the School District of Philadelphia requires linkage among the--

- Division of Career Education;
- Division of Special Education;
- district office and staff; and
- school staff.

The unique role of each is described in subsequent manuals. The following material represents an explanation of the general concept of linkage as well as direction for its implementation. Two significant resources of information with guidelines for interdepartmental and interagency linkage have been published by the Leadership Training Institute/Vocational and Special Education, University of Illinois, and the Technical Education Research Centers at Cambridge, Massachusetts. The following basic information regarding linkage represents selective paraphrasing from these two timely resources.

Definition

Interagency cooperation, or linkage, is the activity by which agencies or departments join forces to serve similar populations of clients. The major objective of linkage is the provision of the best possible service in the most cost-effective manner. When several agencies work together, the end product is the

cooperative arrangement that develops for serving clients.

The terms cooperate, collaborate, plan and agree are terms often associated with the concept of linkage. The two major components of linkage are agreement and planning. In the agreement stage, agencies or departments "agree to agree" with one another; then, in the planning stage, the agencies identify detailed methods by which they can and will link services.

The Problem

Amid calls for accountability, the question "How can we maintain present services and develop new services without substantially increasing expenditures?" becomes crucial for any organization with limited funds and resources. In most school districts, there are several service providers responsible for meeting the needs of the same students. Often, these providers do not successfully pool their resources or coordinate programs to meet the needs of their shared students.

Without linkage, the resulting delivery spectrum for students may be characterized by any one of the following:

- Unserved or underserved students who fall into the "cracks" between agency or departmental mandates
- Inefficient use of limited resources
- Competition for clientele and/or funding among organizations and departments
- Inadequate referral networks for helping users locate needed services
- Inadequate or nonexistent linkages between related services

Appropriate attention to such situations will result in a cooperative, district wide approach to meeting the needs of any student group with multiple needs.

The Solution

Collaboration is the first step toward developing a unified plan for meeting the needs of any underserved group of clients. By bringing together all key personnel from the Division of Career Education, the Division of Special Education, district offices, and school staff serving a particular clientele, collaboration fosters--

- a sharing of organizational perspectives for meeting the needs of clients;
- a sharing of information about services currently offered to clients;
- the identification of new programs or new linkages between existing programs that could meet crucial client needs;
- the identification and sharing of organizational resources that could be pooled from departments holding needed resources; and
- the development of long-term collaborative relationships that ensure continued communitywide efforts to identify client needs and to develop programs for common clientele.

As an example, the improvement of career-related services for handicapped youth is a natural theme for a collaborative planning effort. No one organization can be expected to have the resources, expertise, time, or energy to provide the full range of services necessary to prepare handicapped youth for the work

environment. Resources and expertise are needed from all sectors of the vocational education system. In Philadelphia, personnel can collaborate to plan and implement key career-related programs, such as the following:

- Career exploration
- Employer sensitization
- Vocational assessment
- Work experience
- Job placement
- On-the-job training
- Personal and career counseling
- Equipment modification
- Inservice training

When collaborative agreements are formed, effective local agreements are specific and address such items as defining services, eligibility, and provision of services.

Linkage Facilitation

Commitment and leadership at the highest level are of utmost importance for the implementation and maintenance of interagency cooperation; the linkage commitment needs to be at the highest decision-making level to facilitate positive movement toward collaborative agreements. Decision makers should be able to identify specific individuals within their structure who can assume responsibilities for collaborative functions within and between offices. Similarly, mid-management personnel should have the authority to move freely within and across departments and to be recognized by the established power structure. Various resources of the organization should then be available to

accomplish the tasks of the actual collaborative activities. When identifying critical areas of linkage, care should be taken to review such items as attitudinal factors, preconditions, and facilitators that contribute to success; categories that influence the development and maintenance of interagency linkages, barriers, and incentives to cooperation; and methods for reducing risk factors.

The federal government is attempting to link traditional rehabilitation services with vocational education by integrating service delivery models. The school district will be accessing rehabilitation services and implementing linkage in the near future.

Philadelphia's Linkage

A true sense of commitment to the provision of quality vocational education for the handicapped is a primary goal of the Division of Career Education and the Division of Special Education. Full expression of this goal is provided in the Philadelphia Intermediate Unit Plan

The cooperative efforts of both divisions are most instrumental in the effective delivery of unified support to vocational education programs for the handicapped. The Divisions provide technical support in a variety of areas related to vocational programs. Technical support may include the following:

- Allocation of human and material resources
- Identification of assessment strategies to define the vocational education needs of students
- Ongoing program development to meet the unique needs of students
- Ongoing curriculum development and refinement
- Ongoing communication and staff development programs designed to meet the vocational education needs of exceptional students
- Development of proposals and grants to seek additional funding sources.

Career educators and special educators are committed to providing technical support to vocational programs in general, and to meeting the individual needs of all exceptional students as identified through the CSET and IEP processes. The divisions direct the greatest level of support to the vocational programs at the school level through school principals to their staff. Additional service is provided by special education staff deployed to the schools from the district offices. Central staff from career, vocational, and special education are prepared to assist schools and district offices as requested.

The cooperative, careful allocation of special education and vocational education resources is required not only to avoid possible duplication of efforts but also, more importantly, to ensure that the diverse needs of handicapped students can be addressed. It makes little sense to require that vocational programs meet individual needs without a coordinated provision of

resources to meet those needs. Further, the expanding variety and adaptation of existing vocational programs to meet the needs of handicapped students provides testimony to this commitment. Specific ongoing, cooperative activities are identified for all administrative personnel. All instructional support personnel are directed to appropriately participate in the CSET and IEP processes so that their expertise can be applied to assessing and matching student needs to programs and services.

The careful delineation of the roles and responsibilities of all personnel deployed from the Division of Career Education and the Division of Special Education ise described in the role specific manuals. Specific demonstration of a coordinated approach to support school-based programs of vocational education for the handicapped is required of all support personnel.

In general, the activities of all support personnel may be identified as part of the following steps:

- CSET process (evaluation of student needs)
- IEP process (planning appropriate programs)
- Instructional programming (direct delivery of instructional and support services and review and revision of programs as needed)

The school district, through the technical support of the Division of Career Education and the Division of Special Education, is committed to positive cooperative actions in each of the following areas of concern:

- Assuring handicapped students of equal opportunity for admission to programs that may already be oversubscribed
- Providing educational services to handicapped students in the least restrictive environment. In most cases this will be the regular vocational education program serving nonhandicapped students.
- Ensuring vocational education participation in the development of IEPs
- Meeting the IEP requirements through the classroom experience
- Providing adequate vocational assessment and evaluation services
- Ensuring adequate career education experiences for handicapped students as a basis for vocational education
- Expanding vocational education recruitment practices to include handicapped persons and encouraging their enrollment.
- Increasing job development activities and job placement of handicapped persons completing vocational education
- Providing adequate staff development for vocational teachers who cannot education relating to teaching handicapped students and for vocational special teachers who instruct career education for special education teachers
- Developing supportive working relationships between special education and vocational education programs at the local levels
- Developing a vocational education system that serves the needs of individual students in the most inclusive ways possible

In summary, established linkages between divisions within the School District of Philadelphia will ensure that these concerns are addressed, enabling the District to provide programming to meet the needs of students.

REFERENCES

Davis, Sharon, and Ward, Michael. Vocational Education of Handicapped Students - A Guide for Policy Development, Reston, VA.: The Council for Exceptional Children, 1978.

James P. Grennan, Editor. Interagency Cooperation and Agreements, Policy Paper Series: Document 4, Urbana-Champaign, IL: Leadership Training Institute/ Vocational and Special Education, University of Illinois at Urbana-Champaign, 1980.

Ferrini, Paul, et al. The Interdependent Community: Collaborative Planning for Handicapped Youth. Leaders Handbook, Cambridge, MA: Technical Education Research Centers.

Kahn, H., and Weiner, A. The Year 2000, A Framework for Speculation on the Next 33 years. New York, NY: The Macmillan Company, 1967.

PREFATORY DEFINITIONS

28

Career Education

Career education is a comprehensive effort to provide pupils kindergarten through twelth grade with the knowledge, skills, and attitudes required to make work a productive and meaningful experience and part of life. It represents the integration of career/vocational attitudes and skills throughout the entire pupil curriculum including career awareness, exploration, decision making, planning, implementation, and maintenance.

Career Development

Career development is a lifelong process and sequencing of activities that include self awareness, career awareness, values clarification, career exploration, development of interpersonal and basic employment skills, awareness of the significance of work, money management, leisure time preparation, and obtaining, maintaining, and terminating a job. This sequencing of activities, as a whole, is designed to make work a meaningful part of an individual's life.

Vocational Education

Vocational education refers to approved programs under public supervision and control that provide organized learning experiences designed to develop skills, knowledge, attitudes, and work habits in order to prepare individuals for entrance into and progress through various levels of paid and unpaid employment in

occupational fields including agriculture, business, distribution, health, gainful and useful home economics, and trades and industry, or for additional preparation for a career requiring other than a baccalaureate or advanced degree.

Special Education

Special education is a basic education program adjusted to meet the educational needs of exceptional persons. Regulations related to P.L. 94-142 define special education as,

> specifically designed instruction, at no cost to the parent, to meet the unique needs of a handicapped child, including classroom instruction, instruction in physical education, home instruction, and instruction in hospitals and institutions. The term includes speech pathology, or any other related service, if the service consists of specifically designed instruction, at no cost to the parents, to meet the unique needs of a handicapped child (Rules and Regulations, P.L. 94-142, Federal Register, August 23, 1977).

Vocational Special Needs

Vocational special needs refers to vocational education for disadvantaged or handicapped persons supported with funds under the Vocational Education Act of 1976 (P.L. 94-482) to include special educational programs and services designed to enable disadvantaged or handicapped persons to achieve vocational education objectives that would otherwise be beyond their reach as a result of their handicapping condition. These programs and services may take the form of modification of regular programs or

be special vocational education programs designed only for disadvantaged or handicapped persons. Examples of such special educational programs and services include the following: special remedial instruction, guidance, counseling and testing services, employability skills training, special transportation facilities and services, special educational equipment, services, and devices, and interpreter and reader services. Such education includes working with those individuals in need of vocational training who cannot succeed in a regular vocational program due to a handicapping condition or the effects of disadvantagement.

Definitions of Handicapping Conditions According to Pennsylvania Standards for Special Education

Brain damage is a moderate to severe injury to the brain, as identified by a neurological examination, resulting in severe behavior and learning disorders. Persons whose behavior and learning disorders are primarily the result of visual, hearing or motor handicaps or mental retardation, emotional factors or of environmental disadvantage are not brain injured. The term brain damage does not include the condition known as minimal brain dysfunction.

Hearing impaired is a hearing loss ranging from mild (hard of hearing) to profound (deaf), which interferes with the development of the communication process and results in failure to achieve full educational potential. A person shall be assigned to a program for the hearing impaired when the evaluation and Individualized Education Program (IEP) plan indicate that such a program is appropriate, provided that the evaluation includes a report by an audiologist and otologist.

Learning disability is a deficiency in the acquisition of basic learning skills, including but not limited to, the ability to reason, think, read, write, spell, or to

do mathematical calculations, as identified by an educational and psychological evaluation. Persons who have learning disorders which are primarily the result of emotional factors or of environmental disadvantage are not learning disabled. The term learning disability does not exclude the possibility that a learning disabled person may also exhibit such conditions as brain damage or minimal brain dysfunction. A person shall be assigned to a program for the learning disabled when the evaluation and Individualized Education Program (IEP) plan indicate that such a program is appropriate, provided that the evaluation clearly indicates that the person can demonstrate average or above average intellectual functioning on an appropriate intelligence measure. The evaluation shall include an assessment of specific academic strengths and weaknesses.

Mentally retarded persons have impaired mental development which adversely affects a person's educational performance. A mentally retarded person exhibits significantly impaired adaptive behavior in learning, maturation and/or social adjustment as a result of subaverage intellectual functioning. The degree of retardation and the level of social and academic functioning, not deviant benavior patterns, shall be the factors in determining the individualized program. A person shall be assigned to a program for the mentally retarded when the evaluation and Individualized Education Program (IEP) plan indicate that such a program is appropriate, provided that no person shall be assigned to a program for the--

1. educable mentally retarded unless their IQ score is lower than eighty;
2. trainable mentally retarded unless their IQ score is lower than fifty-five;
3. severely and profoundly mentally retarded unless their adaptive behavior is so severely impaired that educational programming is oriented to behaviors that may be considered absolutely basic to higher levels of skilled performance. Individuals with an IQ score lower than thirty may be considered for these programs and shall be evaluated by a physician prior to assignment.

Mentally gifted and talented persons have outstanding intellectual and creative ability, the development of which requires special activities or services not ordinally

provided in the regular program. Persons shall be assigned to a program for the gifted when they have an IQ score of 130 or higher. A limited number of persons with IQ scores lower than 130 may be admitted to gifted programs when other educational criteria in the person's profile strongly indicate gifted ability.

Physically handicapped persons have orthopedic and/or other health impairments of sufficient magnitude to limit classroom accommodation and educational performance. A person shall be assigned to a program for the physically handicapped when the evaluation and Individualized Education Program (IEP) plan indicate that such a program is appropriate provided that the evaluation includes reports from a physician and a certified public school psychologist.

Severely multihandicapped persons who are diagnosed as having two or more of the severe handicapping conditions required for assignment to approved private schools. (i.e., blind, brain damage cerebral palsy, deaf, emotional disturbance, muscular dystrophy, severely mentally retarded)

Socially and emotionally disturbed persons have a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree: an inability to learn which cannot be explained by intellectual, sensory or health factors; an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; inappropriate types of behavior or feelings; a general pervasive mood of unhappiness or depression; or a tendency to develop physical symptoms, pains or fears associated with personal or school problems. A person shall be assigned to a program for the socially and emotionally disturbed when the evaluation and Individualized Education Program indicate that such a program is appropriate, provided that evaluation includes reports from a board-certified or approved psychiatrist.

Speech and language impaired persons have communication disorders of impaired language, voice, fluency or articulation to such a degree that academic achievement is invariably affected, and the condition is signficantly handicapping to the affected person. A person shall be assigned to a program for the speech and language impaired when the screening by a speech clinician and the Individualized Education Program (IEP) plan indicate that such a program is appropriate. Where appropriate, an evaluation by a certified public school psychologist or physician shall be performed.

Visually impaired persons have a visual impairment that adversely affects educational performance. A person shall be assigned to a program for the visually impaired when the evaluation and the Individualized Education Program (IEP) plan indicate that such a program is appropriate, provided that the evaluation includes an examination by an eye specialist and a written report of the nature and degree of the visual impairment.

References

Albright, L. Administering Programs for Handicapped Students. Arlington, VA: American Vocational Association, 1979.

Commonwealth of Pennsylvania. Department of Education. Standards for Special Education. Harrisburg: Commonwealth of Pennsylvania, Department of Education.

Commonwealth of Pennsylvania. State Board of Education. Regulations of the State Board of Pennsylvania, Chapter 13, "Special Education". Harrisburg: Commonwealth of Pennsylvania, Department of Education.

Federal Register. August 23, 1977.

Meers, G.D., ed. Handbook of Special Vocational Needs Education. Rockville, MD: Aspen Systems Corporation, 1980.

LEGAL IMPLICATIONS

Overview

Americans have traditionally supported the concept of a free public education for all children; unfortunately, handicapped children have not always been beneficiaries of full educational services. During the last twenty years, however, there has been a strong advocacy movement to aid the handicapped. These advocates have protested that the handicapped, especially the institutionalized handicapped, have not been afforded appropriate opportunities. The laments of these advocates were loud, and the public listened.

Congress listened, also, and responded. A flood of legislation appeared; each new act ensured further progress for the handicapped, especially in the area of education. Congress agreed with the advocacy groups that training a segment of the population for economic dependency was neither a kindness to those individuals, nor a luxury the nation could afford. Moreover, to exclude the handicapped from educational opportunities and services was to deny them a basic civil right.

Consequently, the seventies produced the most comprehensive legislation regarding the education of the handicapped. At last, the law of the land mandated a free and appropriate education for all American youth.

It is the challenge and the obligation of American school districts, administrators, and teachers of the eighties to fully

implement these fundamentals and far reaching mandates.

Federal Legislation

Today's educator needs knowledge of three major pieces of federal legislation that are sure to impact upon professional responsibilities.

The Education for All Handicapped Children Act of 1975, P.L. 94-142

The Education of All Handicapped Children Act of 1975, P.L. 94-142, is the most comprehensive and significant legislation regarding the education of handicapped children. In brief, P.L. 94-142 mandates a free, appropriate education for all handicapped children and youth. Included within the definition are the deaf, deaf-blind, hard of hearing, mentally retarded, multihandicapped, orthopedically impaired, other health impaired, seriously emotionally disturbed, specific learning disabled, speech impaired, and visually handicapped.

The legislation further stipulates that related services must be provided at no cost to the child or parents. For example, transportation and the developmental, corrective, and supportive services required to help a handicapped child benefit from special education are provided. Related services may include such areas as speech pathology and audiology, phychological services, physical and occupational therapy, recreation, early identification and assessment of disabilities in children,

counseling services, medical services for diagnostic or evaluative purposes, school health services, social work services in schools, and parent counseling and training.

Key components of P.L. 94-142 that impact upon the educational process include the following:

1. All handicapped children and their parents shall be guaranteed due process with regard to identification, evaluation, and placement procedures.
2. A multifactored assessment process shall be implemented; no one person or one test instrument shall be the sole reference used for placement. In addition, children shall be assessed in their native or primary language. All evaluation procedures and instruments must be selected and used so that they are fair to all students regardless of race or culture.
3. Once a student has been identified as being handicapped, the law requires that a written Individualized Education Program (IEP) plan be developed and implemented for each child receiving special education services. The IEP must include a statement of the specific special education and related services to be provided to children to meet their unique needs.
4. To the maximum extent possible, handicapped children should be educated with nonhandicapped children in

settings that are as normal as possible. This means that these students should be placed in more restrictive settings only when regular education with supportive services has been shown to be ineffective. This is commonly called placement in the least restrictive environment (LRE).

5. The local education agency has the primary responsibility to provide appropriate education programs for its handicapped students and must also provide for the periodic review and monitoring of such programs. Local education agencies must also file a written plan clearly stating the procedures that they are employing to meet the mandates of the law, including: (a) extensive child find procedures, nondiscriminatory evaluation, and placement procedures, (b) "full services" goals; (c) a guarantee of complete due process procedures; and (d) a guarantee of policies and procedures to protect the confidentiality of pupil data and information.
6. Appropriate inservice training must be provided to all regular education, special education, and support personnel who are responsible for educating handicapped students.

The Vocational Education Act Amendments of 1976, P.L. 94-482

The Vocational Education Act Amendments of 1976, P.L. 94-482, is a strong companion piece of legislation to P.L. 94-142. The 1976 Vocational Education Amendments mandates the need to serve special needs populations of all ages who could benefit from vocational education. P.L. 94-482 also refers to the importance of the IEP including vocational education programming, where appropriate, and requires states to describe in their state vocational education plan how the program provided to each handicapped child will be planned and coordinated in conformity with and as a part of the child's Individualized Educational Program as required by the Education of All Handicapped Children Act. In addition, P.L. 94-482 accepts the standards set for states, which are required by P.L. 94-142, thereby, requiring compliance with that Act in order to be eligible for funds from P.L. 94-482. Thus, this reinforces the mandates of P.L. 94-142 both in philosophy and action.

From the federal funds allocated to states for vocational education, at least 10 percent must be set aside to be used solely for the provision and support of vocational programs, services, and activities for the handicapped. Such funds may be used for both secondary and postsecondary and technical vocational programs.

Special vocational education programs serve those handicapped who, by reason thereof, require special education and

related services and who, because of their handicapping condition, cannot succeed in regular vocational education programs without special educational assistance or require a modified vocational education program. P.L. 94-482 specifically states that any vocational education program using federal funds must meet the goals of P.L. 94-142 and comply with its requirements. Thus, all rights guaranteed under P.L. 94-142 are extended to handicapped children served under the Vocational Education Act.

The Rehabilitation Act of 1973, P.L. 93-112, Section 504

The Rehabilitation Act of 1973, P.L. 93-112, Section 504 represents the first federal civil rights law that specifically protects the rights of the handicapped. It is mentioned last in this section in order to stress that P.L. 93-112 (later amended in P.L. 93-516) includes fiscal restraints on agencies in noncompliance with the Act, and thus provides a primary source of enforcement of P.L. 94-142, The Education for All Handicapped Children Act of 1975. The protection of the civil rights of handicapped persons can be most easily illustrated by examining the exact wording of Section 504:

> No otherwise qualified handicapped individual in the United States shall, solely by reason of his handicap be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

Section 504 applies to handicapped individuals of all ages. In addition to reaffirming every handicapped child's right to a free, appropriate education, the law also includes these important requirements: (a) handicapped individuals must have opportunities to participate in or benefit from services equal to those that are provided to other individuals; to exclude handicapped pupils from elementary or secondary programs constitutes a violation of their civil rights; (b) colleges and postsecondary programs that receive federal funds may not discriminate against applicants on the basis of handicap--and further, accommodations must be made to make it possible for qualified handicapped pupils to participate in their programs (e.g., special equipment, provision of interpreters and tutors, and so forth); and (c) all programs and services must be accessible.

In meeting the objective of program accessibility, a district must take care not to isolate or concentrate handicapped persons in settings away from nonhandicapped program participants. The regulations require that programs must be accessible to handicapped persons. This does not mean that every building or part of a building be accessible. Structural changes must make the program accessible if alternatives, such as reassignment of classes, are not possible. Handicapped students may not be exclusively assigned to separate annexes or branches; they may

not be denied equal vocational education opportunities as a result of inaccessible facilities or inadequate evaluation procedures. Further, eligibility requirements or admission tests may not deny vocational education opportunities on the basis of race, color, national origin, or handicap. Noncompliance jeopardizes receipt of all federal funds.

Summary

It can be clearly recognized through the passage of these three pieces of legislation that Congress does intend handicapped youth to receive and benefit from full educational services and opportunities. It should be equally clear that implementing these mandates will require the efforts, expertise, and cooperation of all educators.

Commonwealth of Pennsylvania Guidelines

In response to federal mandate, the Pennsylvania Department of Education has developed a state plan, which assures that local education agencies under the jurisdiction of the state comply with the mandates of the federal legislation pertaining to handicapped persons.

In conjunction with the state plan, the state publishes and disseminates regulations, standards and guidelines for special and vocational education that local education agencies must

implement with full compliance.

The State Standards for Special Education published on October 1, 1977 comply with the mandates of P.L. 94-412. These standards describe the requirements for operating special education programs for all exceptional students in Pennsylvania. This means that in Pennsylvania, not only all handicapped students but also all mentally gifted and talented students are afforded the protection of the law, including the provision of a written IEP.

Additionally, the Regulations, Standards and Guidelines for Vocational Education (1978) provide extensive direction to the planning and implementation of vocational education programs.

The Regulations, Standards and Guidelines for Vocational Education (1978)

This document provides additional information and program requirements related to federal legislation. Local school administrators responsible for establishing and operating programs of vocational education must apply requirements in this document to ensure full compliance with state and federal laws.

Goal VIII of Goal Regulation 6.91 of this document articulates the state's commitment to vocational education for the handicapped. Goal VIII requires school districts to develop and expand vocational education opportunities for the handicapped. Subgoals to goal VIII further elaborate this

position.

The subgoals are as follows:

VIII.1 Provide remedial and supportive vocational services for disadvantaged and handicapped students to foster their placement in regular vocational education programs.

VIII.2 Modify regular vocational education programs to meet the needs of disadvantaged or handicapped students.

VIII.3 Develop special vocational education programs based on the needs of disadvantaged and handicapped students.

VIII.4 Provide more vocational education opportunities in areas of the state that have a high concentration of youth unemployment and/or school dropouts.

VIII.5 Promote exploratory (hands-on) prevocational programs for disadvantaged and handicapped students.

School District Guidelines

Both federal and state legislation provide the impetus for local school district policies and procedures. In order to meet the requirements of both federal and state mandates, the School District of Philadelphia has developed a comprehensive Intermediate Unit Plan of Special Education. This plan documents all major aspects of programming, and ensures the state that the school district is in compliance with state and federal laws.

Vocational education is a key component of the Intermediate Unit Plan. The vocational education segment of the plan was

developed with broad based school and community input. It is the product of the cooperative work of the Division of Special Education and Division of Career Education within the School District of Philadelphia.

The following comprehensive programmatic goals appear in the Philadelphia Intermediate Unit Plan and in the Superintendent's Systematic Goals for the Education of All Students:

1. Provide remedial and supportive vocational service for disadvantaged and handicapped students in order to foster their placement in regular vocational educational programs.

2. Develop career exploration activities for handicapped pupils in order to provide them with--

   - awareness of career options; and
   - opportunity for exploratory (hands-on) experience in a wide variety of occupational areas in order to prepare the handicapped pupil to select the best vocational education courses.

In addition to the Intermediate Unit Plan, the School District of Philadelphia, Division of the Special Education, developed the Policies and Procedures Manual which describes activities to ensure compliance with state and federal requirements in evaluation, placement, and due process procedures for handicapped students. The policies and procedures are used to guide CSET teams and to assist them in developing appropriate Individualized Education Program Plans (IEP) plans for exceptional students.

PROCEDURES AND PROCESSES TO
PROVIDE CAREER PLANNING AND
VOCATIONAL PROGRAMMING FOR
HANDICAPPED YOUTH

Overview

Career development activities and vocational education are integral parts of a quality comprehensive educational system as they are used to provide both general, as well as, occupational training. Vocational education contributes to a student's economic and social growth. All students who want, need, and can benefit from vocational training, without regard to race, sex, religion, or handicapping condition, should have access to it.

A comprehensive career development and vocational education program bridges the transition from school to work. Concerned with the total development of an individual, vocational education fosters an appreciation for the work ethic, proper work attitudes and work habits, and contributes to a student's usable consumer and employment-related knowledge, leadership skills, and salable employment skills.

The School District of Philadelphia offers a continuum of programs to all students beginning with career awareness and continuing through to occupational preparation and training. Thus, vocational education is an integral part of Philadelphia's career education plan. The career awareness component is infused into the curriculum from the onset of school and continues into the formal prevocational instruction, which begins in the fifth grade. Students in grades five through eight, may enroll in prevocational, vocational orientation, and career exploration

programs. Career exploration programs are offered through business education, home economics, and industrial arts programs.

Secondary level vocational training begins as students reach ninth grade. Philadelphia's vocational education training at this level is a combination of vocational skills training and academic studies. Vocational education programs are available in comprehensive high schools, area vocational technical schools, skills centers, and some magnet schools located throughout the city.

Vocational education prepares students for part-time employment while attending school and for full-time employment immediately upon graduation. Part-time cooperative and work experience programs are offered during the senior year of a vocational curriculum. For out-of-school as well as in-school youth, vocational education plans, develops, and delivers education and employment training services in cooperation with agencies such as the Philadelphia Office of Employment and Training, Opportunities Industrialization Center of America, Philadelphia Chamber of Commerce, Urban Coalition, Urban League, Jewish Employment Vocational Services, and the Private Industry Council.

To meet the career development and vocational training needs of the handicapped learners in Philadelphia, a cooperative and multidisciplinary approach is utilized. The Division of Special

Education and the Division of Career Education, of which vocational education is a major component, have linked their efforts to prepare handicapped youth for an adult worker's role.

Professional personnel working with the guidelines and goals of one department, may not know the objectives and guidelines of another department may not be known. To provide role clarity, the program components of career education, vocational education and special education are listed on the following page. The chart is designed to foster a better understanding of roles and to facilitate the desired successful linkage of professional personnel who serve handicapped youth.

CAREER EDUCATION, VOCATIONAL EDUCATION AND SPECIAL EDUCATION OBJECTIVES

Program Components	Career Education	Vocational Education	Special Education
1. Skills to be delivered to students	1. Ten general employability/adaptability/promotability skills needed to succeed in work and in life	1. Specific vocational skill required for entry into specific occupations	1. Regular education curriculum to the maximum extent possible with emphasis in 7 major domain areas as necessary to reduce deficits. domestic maintenance/ personal maintenance/ community living/ functional academic/ physical, motor, mobility/ interpersonal communicational/ and vocational
2. Population to be served	2. All students grades K through adult	2. Some students primarily at secondary, postsecondary, subbacaularate, and adult education levels	2. All students identified as hearing impaired, mentally retarded, physically, handicapped, learning disabled, brain damaged, speech and language impaired, socially and emotionally disturbed, visually impaired or severely multihandicapped, mentally gifted and talented in need of special education programs and services
3. Major delivery strategy	3. Infusion into all existing curricula	3. A separate instructional program	3. The IEP-all handicapped students must have an annual career education goal and, when appropriate, a vocational education goal

Program Components	Career Education	Vocational Education	Special Education
4. Use of community resources	4. Active "partners" in delivering career education skills	4. Primarily serve in an advisory capacity	4. Use of community resources as described on the IEP
5. Work experience objectives	5. Provide skill training in selected vocational education area	5. To supplement specific vocational skills taught in the classroom	5. To help students explore possible careers and and career interests, increase opportunity for independent living
6. Breadth of emphasis on "work"	6. Both paid and unpaid work	6. Paid employment	6. Varies. Increase student's life skills
7. Involvement of community resources	7. Private sector, community service organizations, and volunteer organizations	7. Private and public sector employees	7. Arrangements for instructional settings in the private sector, community service organizations designed to promote a "life skills" approach to instruction
8. General goal	8. To help students acquire skills that will enhance their life experiences.	8. To help students acquire skills that will allow them to gain initial entry into occupations	8. To provide students with an "appropriate" program of education as defined by the IEP

The Individualized Education Plan (IEP) As Program Facilitator

The IEP: Rationale/Purpose

A major requirement of The Education for All Handicapped Children Act (P.L. 94-142) is the development of a written Individualized Education Program (IEP) plan for each student identified as exceptional and in need of special education. The IEP is the vehicle used to document the delivery of appropriate educational programs to special education students. The nature and extent of the special education program, as described in the student's IEP, is determined by the needs of the student.

Student needs and eligibility for special education are determined via a multidisciplinary assessment process. Child Study Evaluation Teams (CSET) established in each school in Philadelphia have primary responsibility for identifying appropriate educational plans for exceptional students and for developing written IEP plans that match the students' needs. Parents have a key role in this process. Parents act as core members of the CSET and are asked to actively participate in and approve of their child's written IEP plan.

The IEP enhances appropriate planning and monitoring of an individual student's education program, and also provides a means by which teaching strategies and other educational practices can be objectively evaluated. An "appropriate" education is described through the cooperative development of the IEP. "Free

appropriate public education" can be translated as education designed to fit the child, as well as and education that is provided at no cost.

Definition of the IEP

The IEP in its simplest form is a written document developed as a result of a planning conference attended by the individuals most concerned with and responsible for a handicapped child's education--teachers, parents, and the school principal. The IEP is basically an instructional management device linking special students with appropriate services. Thus, the IEP serves as a guide to aid in the proper placement of and programming for all handicapped learners.

Components of the IEP

Public law 94-142 requires that all IEPs contain the following components:

1. A statement of the student's present levels of educational performance
2. A statement of annual goals, including short-term instructional objectives
3. A statement of the specific special education and related services to be provided to the student, and the extent to which the student will be able to participate in regular educational programs
4. The projected dates for initiation of services and the anticipated duration of the services
5. Appropriate objective criteria, evaluation procedures and schedules for determining, on at least an annual

basis, whether the short-term instructional objectives are being achieved

6. The nature of the physical education component for the child must be identified.

A complete description of each component and guidelines for judging the technical adequacy of a written IEP appear in Appendix A of this manual. Further, the School District of Philadelphia's Policy and Procedures Manual should be utilized as a key reference for the sequential steps in IEP development and related procedures designed to ensure effective parental participation and adherence to procedural safeguards. The purpose of the remaining sections of this chapter is to provide materials that will help educators use the IEP development process as an integral tool in the development of meaningful career planning and vocational programming for all handicapped students.

Under P.L. 94-142, the definition of special education also includes "vocational education if it consists of specially designed instruction, at no cost to the parents, to meet the unique needs of a handicapped child." Therefore, the IEP should describe the modifications and adaptations of instruction and equipment, and the supportive/related services that are necessary for the handicapped student's participation in vocational education. It is possible that students with a handicapping condition may not be viewed as handicapped in terms of a specific

vocational education program. If the students are able to succeed in a regular vocational education class without direct special education assistance, curricular modification, or adapted materials, a statement of the full extent of their participation in regular vocational education should be included in the IEP; For other handicapped students, key indicators of what is needed to make the regular vocational class viable for the handicapped student should be documented. It is also important to note that a student who does not require special education is not eligible for related services under Public Law 94-142. The IEP must also include justification for the student's type of placement and a list of the individuals responsible for implementing the IEP.

The Individual Education Program Process

In brief, the following sequential list of activities may assist the IEP participants in developing the written IEP:

1. Outlining areas of concern based upon previous student performances records, assessment results and evaluation data
2. Prioritizing long-term goals
3. Writing short-term objectives
4. Specifying services needed
5. Specifying percentages of time the student will receive the service
6. Setting time lines with a beginning and ending date for each service

7. Stating the time to be spent in regular classes

8. Making a placement recommendation

9. Making specific recommendations for carrying out the IEP

10. Establishing objective evaluation criteria.

While this list is helpful for a casual overview of the IEP process, a closer examination of some aspects of the process is warranted.

The first step in preparation for the IEP meeting should be for the participants to become familiar, to the fullest extent possible, with the student for whom plans are to be developed. A complete review of CSET evaluation materials already prepared should be of invaluable assistance in this regard. Since an Individual Education Program must be in effect before special education and related services are provided to a child, background information and assessment data need to be a matter of record and, thus, easily obtainable at the time of the IEP process initiation.

> "Sitlington and Wimmer (1978) point out that a number of types of information are necesary in planning for the handicapped adolescent. They list the following informational areas: (1) medical, (2) education, (3) personal/social, (4) interests, (5) work habits and attitudes, and (6) learning style. They further indicate that this information can be obtained in a number of different ways: (1) medical examination, (2) paper and pencil tests, (3) manual dexterity tests, (4) commercially developed assessment systems, (5) self-developed work samples, (6) behavior analysis, and (7) situational assessment. The vocational teacher can readily provide information in the last three areas by carefully observing

and analyzing a student's performance. In many instances, however, the vocational teacher will need assistance to develop the skills for analysis." (Vasa 1980)

"In planning individual programs for the handicapped, the vocational educator should be part of a cooperative, multidisciplinary team, serving either as an immediate member of that team or as a resource person providing input." (Dahl 1978)

With the team members in place, the first area of concern is the relationship between the evaluation data on the child and the planning of the IEP. (Bateman 1979) The section of the IEP dealing with the statement of annual goals and short-term objectives will be one of the most important and frequently reviewed parts of the plan.

IEPs must include written information describing the present levels of student performance. Linked to the levels of performance must be information describing the needs of the student, which should identify the most effective methods and materials that can be used to help minimize learning problems.

For the purpose of completing information under present education levels, the term "assessment" is used to refer to the process of determining the student's levels of performance and corresponding instructional needs, as opposed to determining whether learner objectives have been met. Assessment should be viewed as a continuous process, a process that provides program planning information needed at each point of the decision making

process. Student information included under present education levels will determine the content of the education program, as contained in the goals and objectives of the IEP.

A variety of techniques can be employed to collect data on student functioning in the areas included under career education. The chart that follows has been adapted from Sitlington and Clark. It summarizes a variety of assessment techniques and classifies them according to the type of information for which they are commonly used. This chart should assist program planners (CSET) to selecting assessment devices appropriate in the learner. The assessment methods must be identified on the IEP.

Areas of Information	Paper & Pencil Tests	Manual Dexterity Tests	Commercial Assessment Systems	Self-Developed Work Samples	Behavior Analysis	Situations Assessment	Medical Examination
Medical							●
Educational	●						
Personal/Social	●	●	●	●	●	●	
Interests	●		●	●			
Work Habits & Attitudes		●	●	●	●	●	
Aptitudes/Skills	●	●	●	●	●		
Learning Style/ Potential	●	●	●	●	●		

School District of Philadelphia Adapted from Clark, 1975

The assessment process should yield specific information in a number of different areas. Instructional areas regarded by the Division of Career Education to be part of vocational/career preparation and therefore important curricular areas for needed student data are as follows:

- OCCUPATIONAL GUIDANCE AND PREPARATION (awareness, exploration, preparation)
- DAILY LIVING SKILLS (basic academics, recreation, and leisure)
- PERSONAL-SOCIAL SKILLS (values, attitudes, interpersonal relationships, individual responsibility, community awareness/involvement, positive self-image)

Including these curricular areas in a career education model that begins at the elementary level and continues throughout the student's entire school experience will allow for the systematic coordination of school, family, and community components to enhance each individual's potential skills for economic, social, and personal fulfillment.

Age, handicapping condition, environment, and skill level are factors that guide and shape the educational program and determine the type of assessment data to be collected. These factors should assist the educator, parent, and student in deciding whether the focus of the educational program should be career awareness, exploration, or preparation.

When describing the present education level of the handicapped student it is important to remember the scope of

career training and to make certain that appropriate documentation is collected in relevant instructional areas. A career education program is comprised of a myriad of specific competencies that are soundly based on adaptive skills. This adaptability, in turn, stems from a strong foundation in academic skills, a personal meaningful set of values, positive attitudes toward self and others, good work habits, satisfying and satisfactory human relationships, knowledge of occupational and leisure alternatives, knowledge of the nature and realities of the world of work, and skills for daily living as well as for a job. All of these areas are addressed in the comprehensive career education curriculum adopted by the School District of Philadelphia.

Although student needs will dictate the extent to which these curricular areas are addressed on the IEP it is important to review each in light of a comprehensive career education model.

Vocational/Occupational Guidance and Preparation

Occupational guidance and preparation within a career education curriculum include several emphasis areas. Among these are: occupational roles (producer and consumer), occupational vocabulary, occupational alternatives, and specific vocational training.

Occupational preparation should be competency-based and should begin in the elementary school and continue in a

systematic manner through the student's entire school experience. In general, learners pass through four stages of career education programming that tend to match the experiences of most persons entering the job market. Competency-based vocational education typically contains the following sequence:

- Awareness
- Exploration
- Preparation
- Placement

Present educational needs, and the student's age determine which step of the model is appropriate.

The School District of Philadelphia considers the following major competencies to fall within the range of occupational guidance and preparation. These competencies correspond with the previously mentioned model and can be used to determine the directions of the assessment process.

School District Competencies for Occupational Guidance and Preparation

- Knowing and exploring occupational possibilities
- Selecting and planning occupational choices
- Identifying tools required for tasks in business, industry, commerce
- Exhibiting appropriate work habits and behaviors
- Identifying interpersonal relationships involved in various career roles

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- Exhibiting sufficient physical-manual skills
- Obtaining a specific occupational skill, and performing entry level tasks
- Seeking, securing, and maintaining employment

Daily Living Skills

Competence in daily living skills relates directly to the individual's success in the world of work and to the student's ability to cope with life's daily demands. Daily living skills often overlap. Therefore, it is critically important to address the daily living needs of the special learner when developing the IEP. For example, the skills required for reading a recipe in cooking a meal at home are the same as those needed for reading a recipe as a cook in a restaurant.

Identifying individual strengths and weaknesses in skills related to daily living will enable the programmer to pinpoint priority instructional objectives related to current and emerging daily living demands. Competencies associated with daily living skills are global and contain numerous subparts. They are most useful to the educator when they are viewed as end points of instruction. They should help the educator determine what areas to assess and consequently what skills to teach.

School District Competencies
for Daily Living Skills

- Educational awareness (basic skills)

- Formulating future career options and appropriate preparatory plans
- Managing family finances
- Selecting, managing, and maintaining a home
- Caring for personal needs
- Raising children, family living
- Buying and preparing food
- Buying and caring for clothes
- Engaging in civic activities
- Utilizing recreation and leisure
- Getting around the community (mobility)

Personal and Social Skills

Instruction in values, attitudes, and habits is important, not in the sense of fostering the content of student values, (money, religious beliefs, race, education, sex, responsibility, work, leisure, and so forth), but rather in terms of teaching the student the process of valuing. Values, attitudes, and habits are so interdependent that a rationale for one is a rationale for the other two. Values, or those beliefs that are cherished, lead persons to assume attitudes or positions that reflect those beliefs. These attitudes, in turn, are manifested in relatively consistent and predictable behaviors, or habits. Assessment information that reveals behaviors that are frequently in conflict with social values and mores signal the need for intervention. The IEP should document the need and specify the intervention strategy.

In addition, vocational/career education should include a deliberate effort to assess and develop student skills in creating and maintaining positive human relationships. The ability to develop and maintain positive human relationships is a key factor to the success of the individual in school, work, and community experience.

It is clear that handicapped children and youth who differ in personal-social characteristics, as well as in their cognitive ability and psychomotor skill performance need specific instruction to deal with those aspects of human relationships that affect their acceptance or rejection. Such instruction should come from every possible source; it should come particularly from the school.

School District Competencies for Personal-Social Skills

Competencies related to instruction in the area of personal-social skills can also serve as a guide for observing student behavior. These competencies are as follows:

- Achieving self-awareness
- Acquiring self-confidence
- Achieving socially responsible behavior
- Maintaining positive interpersonal skills and relationships
- Achieving independence

- Achieving problem-solving skills
- Communicating adequately with others

Student Evaluation

As educators plan and develop special education programs to meet learner needs, it is important that they consider the whole child. Skills intrinsic to success in a work setting are often the same or similar to skills required to deal with demands in the home or community. In order to determine the individual skills needed by each learner it is necessary to evaluate the student and record relevant information.

A variety of evaluation techniques can and should be utilized to obtain an accurate educational profile of the present instructional levels of the student. This information should appear under present education levels and relate to the annual goals and short-term objectives listed on the student's IEP.

Annual Goals

Annual goals must be included on the IEP. Annual goals are statements that describe what handicapped students can reasonably be expected to accomplish within a year in their special education program. As indicated in the previous section, there must be a direct relationship between the annual goals and the descriptors indicating the present levels of educational performance.

The following guidelines may be of assistance to the educator when annual goals are being developed:

- Set a direction and establish a priority,
- Are independent of materials used and independent of grade level,
- Look at more than one behavior,
- Relate to major curricular areas
- Are often measured by review of progress on short-term objectives

The current educational needs of the student determine whether or not the annual goals are appropriate. The selections of appropriate annual goals are determined at the IEP conference.

The annual goals listed below are samples. Their validity and usefulness are individually determined according to the current needs of the learner.

These are examples of annual goals for a vocational career education program:

- Students will develop entry level skills in one or more of the following:

  Agriculture education

  Business and office education

  Distributive education

  Health occupations

  Home economics

  Trade and industry

  Technical education

- Students will become familiar with job skills/requirements in a given occupational cluster

- Students will increase application skills in math
- Students will acquire mobility skills needed to travel to and from work
- Students will independently care for their hygiene
- Students will improve age appropriate socialization skills
- Students will acquire improved independent work habits

Short-term Objectives and Evaluation Procedures

Short-term instructional objectives are mandated components of the IEP. Short-term objectives are measureable, intermediate steps between a handicapped student's present levels of educational performance and the annual goals that are established for the child. The objectives are derived from a logical breakdown of the annual goals.

The short term objectives should look at only one behavior and should be written in a sequence that is logical for the student in light of diagnostic information such as rate of learning, learning style, strengths, and weaknesses. Short-term objectives should be stated in behavioral terms.

Behavioral Objectives

A behavioral objective is a statement of what a student will be able to do when he/she has successfully completed a learning experience.

A well-written objective will include a statement of the following behavioral objectives:

a. Terminal Behavior--what the student will be able to do to demonstrate that that have has learned. This usually takes the form of an action verb.

Examples:

say	identify	operate
name	select	remove
repeat	separate	turn on (off)
reproduce	assemble	wash
copy	construct	collate
choose	measure	package

b. Conditions--the circumstances or situation in which the child will perform. The materials to be used may even be specified.

Condition can be stated as follows:

- time
  - during the shop period
  - at regular intervals
- allowances
  - during a class discussion
  - using recipe
  - using paper and pencil
  - with assistance
  - given a number line
- restrictions
  - without assistance
  - from memory
  - voluntarily provides information

- combinations of time, allowances, and restrictions

  voluntarily provides information at regular intervals

  from memory and using a paper and pencil only when asked and within the class period

c. Criterion--the level of performance that will be accepted as correct or that indicates that the behavior is considered learned.

Criterion can be stated as follows:

- % or # correct — 80% of the time; 4 out of 5 correct; within 90%; at least six times; answers at least once successful each time (100% implied)
- time limits — immediately; within five minutes; during the following week
- qualitative descriptions — grammatically correct; neatly with less than five errors; so that engine runs smoothly; as judged by the teacher

Generally, the students are considered to have successfully completed an objective successfully if they have met the

criterion on three successive days. Simply stated, a behavioral objective specifies what, the student does and how well.

Evaluation Procedures

A clear statement of appropriate objective criteria along with evaluation procedures and schedules to determine whether the instructional objectives that are being met must also be included on the IEP.

An objective evaluation measure is an assessment that measures the skill of the student based upon the conditions for performance as stated in the student's short-term objectives. The evaluation measure essentially determines whether a child has learned what was stated in the objective, given the conditions stated in the objective. The evaluation procedure is a practical test of the material or behavior the student acquired as a result of instruction.

Evaluation measures are used during the year to assess the child's learning and movement through objectives. Evaluation measures can be used at regular intervals (e.g. every six weeks) when a number of skills can be assessed. They can also be used at irregular intervals (e.g. at the culmination of a set of instructional activities). Whether at regular or irregular intervals, evaluation measures contribute to a student's program as a check on the student's progress and the efficacy of the instructional program. Results of the evaluation measures guide

the revision of the student's IEP.

The format of test items for objectively measuring student progress is dictated by the objective. If the behavior and conditions of the objective are clearly specified, it is likely that two different people could independently construct similar assessment measures for the same objective. There are, however, certain important measurement considerations that need to be understood when one attempts to construct evaluation measures. Particularly important are the following:

a. Be careful that the tests measure the specific skill as named in the objective (e.g. if the objective calls for identification, the test should require identification, not naming or reciting).

b. Be certain to keep in mind the kind of stimulus that is being presented to the child, the cognitive processes that are required for the child to go through before responding, and the kind of response required of the child.

c. Be certain that instructions are presented on a level that is understood by the child.

d. Always construct tests that call for objective responses.

e. Check that the test contains enough items to thwart a passing by "chance" alone.

Objective evaluation procedures and schedules to determine if learner objectives are being achieved are mandated components of

the written IEP. Student achievement, or lack of achievement, in reaching criterion in short-term objectives aids in evaluating program effectiveness and guide the revision of the IEP.

Least Restrictive Environment

The law mandates that special education students be educated in as normal a setting as possible. The mildly handicapped student usually requires minimal special education programming and related services in order to successfully function in the school environment. Likewise, the more severely handicapped student requires more extensive services and special education programs to meet learning needs.

Since the IEP is the vehicle used to document the type and nature of the educational program, the IEP planning committee must apply the mandate of least restrictive environment (LRE) to ensure that the student's educational experiences occur, to the greatest extent possible, with nonhandicapped students. Thus, the vocational/career education component of the student's program should be based on learner needs with consideration for the least restrictive placement. Program(s) and placement(s) selected are documented on the IEP.

If a special education student is receiving vocational training, the nature of the program must be considered before it is included in the IEP. If the program is essentially unmodified in any way, annual goals and short-term objectives are not

required but a statement of integration should be included to reflect this participation. If, however, a special education student is receiving vocational training, and the program has been modified in some way to meet individual learning needs, this modification should be described under the student's primary assignment. Documentation of goals and objectives related to the courses the student is taking needs to be provided. In such a case, a vocational educator should be invited to participate in the IEP planning meeting. Similarly, if the handicapped student is participating in a work study or job placement program, this should be documented in the primary assignment and statement of integration sections of the IEP.

A critical step in the development of an IEP is the specification of materials and/or related/special services needed in order to attain the goals and objectives. Such items include large print textbooks, captioned films, interpreter services, teacher aids to support classroom instruction, lab area modifications, equipment modifications, special counseling, prosthesis or special orthopedic appliances." Some representative of supportive services that may be required include speech therapy, remedial reading classes, behavioral planning, social work services, interpreters, instructional aides and/or mobility aides; (Demos and Johnson, 1978) "A teacher's aide may be needed to make taped recordings of text material or

to provide special tutorial assistance. The parents, administrators, special education teachers and vocational teachers should all contribute to specify the specific services needed for the student to participate effectively in the specific selected vocational program.

There is a need to develop inventories of available services within a system so that there can be more sharing of services across the school district. More effort may be needed to find services that fit the needs of the child rather than fitting the child into existing services (Geiser 1980). Services to be provided by outside agencies should be considered as well as those provided by the local district. "Vocational rehabilitation services, for example, may be needed in order for a student to obtain employment. CETA funds for on-the-job training or special assistance from the Employment Services may also need to be utilized. Lists of available community services should be compiled for use in developing IEPs; many parents would benefit from this information." (Hull 1977)

The Role of Vocational Education in the Development and Implementation of the IEP

Almost all handicapped students are identified and have already participated in special education programs before they are old enough for vocational education programs. When a student is ready for placement in vocational education, the vocational

educators should be involved in the meeting to develop the vocational education component of the student's Individualized Education Program. Responsibilities of vocational education include

- ensuring that appropriate vocational education representatives participate in the meeting to develop the Individualized Education Program (IEP) plan;
- ensuring that the vocational education placement is appropriate; and
- ensuring that the vocational education specified in the student's IEP is provided, monitored, and advised as appropriate. (Davis and Ward 1978)

Handicapped students enter a vocational education program as part of their special education programming based on needs identified in their IEP. Some handicapped students may benefit from the same vocational programs as nonhandicapped students; however, when additional supportive services are identified on the IEP they may be provided through either vocational education or special education funding. The delivery of the total program as described on the IEP becomes the responsibility of the school district. It is of critical importance that a vocational educator who is thoroughly familiar with programs and service options participate in IEP development. Such individuals may include the following:

- Vocational Education Supervisor
- Department Head
- Vocational Evaluator

- Specialist who conducted components of a vocational assessment
- Vocational Education Teacher who will instruct the handicapped student
- Supportive Services Personnel such as a Vocational Guidance Counselor, Vocational Resource Teacher and/or a Vocational Rehabilitation Counselor

It is also important for the designated person to convey significant findings directly to the vocational instructor. Mechanisms for such communication between IEP development participants and specific service providers need to be firmly established at each school site.

Once a student is enrolled in a vocational course, the instructor can gather additional information to aid in later revisions of the IEP. This information may include: "student interests; personal and career goals; psychomotor skills; social/interpersonal skills, personal hygiene; communication skills; reinforcers; attendance records; knowledge and use of equipment; attention span; academic skills, samples of classroom work; class participation; job evaluation; observations of learning style; student learning strengths; successful instructional techniques; and, vocational assessment information." (Vasa 1980) Further, vocational instructors have information regarding their individual programs which is essential to IEP development. Such areas include: "course objectives; course outlines; necessary learner abilities, such as

reading skills, psychomotor skills, etc.; safety requirements for the course; employment opportunity outlook in the area; prerequisite skills necessary for the course; evaluation/grading procedures utilized in the course. This information can insure the appropriateness of student placements. No other person is as knowledgeable as the individual teacher about the specifics of each course." (Vasa 1980)

> "As a member of the IEP development team, the vocational teacher or representative should help prepare a summary of findings that influence the student's vocational prescription. That prescription is a statement of annual goals and short-term objectives. Prescribing goals and objectives for prevocational and vocational education requires assessment data that indicate the individual's present achievements in the psychomotor, cognitive, and affective domains. A list of course performance objectives and entry level requirements must be available. The team members can then describe the annual goals in general terms and specify the objectives that need to be achieved. Environmental requirements for a particular handicap should be noted so that modification of facilities, equipment, or support services can be a part of the program plan or IEP, when appropriate.
>
> An effort must be made to explain how to prescribe programs that prepare handicapped persons for employment In prescribing programs leading to employment, these five components should be considered:
>
> 1) Vocational course expectations,
>
> 2) Prerequisite skills and knowledge,
>
> 3) Living skills,
>
> 4) Supervised work experience, and
>
> 5) Employability and social behaviors.

> Employability skills and knowledge related to searching, applying, being interviewed for a job, as well as retaining a job and advancing in a job, should be included in the IEP development. Goals and objectives specifying on-the-job training in a cooperative or apprenticeship program are also desirable components." (McKinney & Seay 1979)

The five preceeding components are important to a team that is making planning decisions for special needs students.

> "An equally important aspect is that the vocational educator takes a personal inventory of his/her teaching strategies and techniques and then determines modifications to improve teaching and to accommodate the special needs student. In addition, educational planners need to be aware of the knowledge the vocational educator has about the community and the school. By the nature of vocational education, the vocational teacher generally has contact with business and governmental agencies which the special educator and parents may not have. This knowledge can be helpful in planning for experiences which will provide practicums for students in the work world. Areas where the vocational educator may have additional knowledge and information to contribute about the community and school are: ancillary services necessary for success in the vocational classroom; school work experience opportunities; cooperative education resources; field experiences and opportunities; employment outlook; job placement services; and knowledge of agencies and services." (Vasa 1930)

Vocational educators will find that parents will often serve as eager partners in helping handicapped students achieve their place in the adult world of work. In order to take full advantage of this potentially fruitful partnership, vocational educators must provide parents with the information they need about vocational programming for special needs youth. Parents may need a better understanding of--

- What to expect from the school vocational program,

- The scope of the vocational education program,
- The program's safety standards and provisions,
- The ways the parents can support the acquisition of specific skills,
- The grading and evaluation procedures utilized by the school system,
- The content and rationale of the career education program,
- The acquisition of skills by their child,
- The needs of the vocational program for future growth and development,
- The performance of their respective children in the vocational program. (Meers 1980)

THE IEP
VOCATIONAL EDUCATION AND THE SPECIAL EDUCATION STUDENT

Recommendation of the CSET/CSRC:	Vocational Education Program(s) documented on IEP. Information should appear under:
1. Student's vocational needs can be met within standard vocational programs	1. Identify student's Primary Assignment(s) and Statement of Integration. Specify the vocational education program in which the student will be enrolled.
2. Student's vocational education needs can be met in the regular education program with the assistance of related services. Services should be specified. There are several options available.	2. Primary Assignment and Statement of Integration under Related Services indicate the specific service and the dates for Initiation and Duration of such services.
2. Student's vocational education needs can be met best through special education programming	3. Identify the student's Primary Assignment and Statement of Integration. Specify Related Services, where appropriate, Present Education Levels, Annual Goals, Short Term Objectives, Evaluation Procedures and Schedules.

Assessment/Evaluation Process

The preparation of an IEP for handicapped students must include a career component that specifies annual and short-term goals for appropriate prevocational or vocational training. The process of individualizing the educational program implies that pupils be evaluated so that reasonable sttements about levels of functioning can be made. Evaluation must be performed in any curricular area determined appropriate for instruction. Evaluation in the area of career preparation is threfore required.

It is important that certain assumptions or ground rules be understood and accepted if evaluation of pupils is to produce meaningful results. The following assumptions are basic to education generally, and are presented here for purpose of developing sound individualized career components for handicapped students in the School District of Philadelphia.

Assumptions

1. Career assessment (career education areas, prevocational, and vocational) includes assessment of pupils as well as programs. These are inseparable, interdependent, and overlapping.

2. The delineation of options for prevocational and vocational training and the competencies required for the successful completion of the options will provide the direction for and enhance efficient assessment of pupils.
3. The purpose of assessing pupils is to describe appropriate programs for the pupils and not to generate data that supports exclusion of the pupils from programs or placement.
4. Individualization is highly desirable, achieveable, and applicable to all pupils, handicapped or not.
5. All pupils profit from systematic instruction and must have access to all options for career training if they demonstrate the required skills.
6. Decisions for electing any training option for pupils must be based on high expectations for the pupils.

Career assessment, prevocational or vocational, requires that pupils be tested in order to gather information useful for planning programs and for making sound recommendations for placement. It is recommended that those responsible for the assessment of pupils generate an assessment plan to accomplish this goal. Assessment plans should include means to evaluate the pupils' personal history, social maturity, general aptitude, achievement in relevant skills levels, and work or job skills. There are many measures, instruments, or strategies that can be

used to derive valid information about pupils and programs. The selection of any measure, instrument, or strategy should be based on a number of considerations. These considerations are elaborated in the role specific manual on student assessment and should include the number of options available for career training, the constraints that time limits place on stff responsible for assessment, and the preparation of IEPs to name a few. It is important to emphasize that while the above considerations, primarily administrative in nature, may shape the strategy used for assessing pupils, any strategy must de detailed with the preparation of the IEP in mind.

The assessment/evaluation process is an integral part of the development and implementation of the IEP. Assessment/evaluation precedes the student's choice of and placement in a vocational program. Assessment is a multifaceted and multiphased process that starts in the elementary school years. From significant career development and prevocational experiences throughout the total school program kindergarten through twelfth grade, information regarding student's interests, maturity, motivation, self-confidence, emotional stability, work tolerance, need for supervision, and other work-related traits and attitudes can be obtained.

The CSET team is responsible for initiating and supervising the assessment/evaluation process. The assessment/evaluation

procedure may be initiated by any of the following several events:

- The appropriate age or grade level of the student,
- The request of the parent,
- The request of the student,
- The request of professional personnel monitoring the student's educational process.

Preceding placement in a secondary vocational or occupationally related program, the CSET team gathers information from all available sources including: health records; guidance records; parent interviews; interest inventories; records of academic, social maturity, and psychomotor skills; and records of the student's participation in career development activities.

The Career Planning System (CPS) is a career development program utilized in the Philadelphia Junior High school classes. The Career Planning System, implemented through the special education teacher, contains descriptive career information and provides simulated activities for information about a variety of occupational areas. The CPS helps students develop the skills to assess personal interests and aptitudes relative to career planning decisions. This material has been specifically adapted for use with mildly handicapped students.

Specific opportunities for structured "in-shop" exploration experiences are available for 9th grade students in the Philadelphia schools. A placement in one of these programs is

planned by the CSET on the basis of the review of the student's strengths, weaknesses, and interests. Students are scheduled for participation in Business Education, Home Economics and Industrial Arts courses for "hands-on" experiences and exploration activities. Placements must be carefully monitored and evaluated as they provide excellent data sources for later specific vocational training decisions. Specific, consistent observational techniques and recording procedures should be used. If further information is needed, the student can be referred for formal work evaluation services where work samples, situational assessment and/or on-the-job exploration can be utilized to assess a student's work skills, work habits and attitudes. This information is then correlated with the student's area of interest for work. Students may require vocational counseling or further vocational exploration experiences before an appropriate placement decision can be reached.

At all times, the student should be considered an integral part of the decision making team, along with the student's parents and CSET personnel. In addition, the results of the assessment should be discussed with the student.

When vocational instructors from the student's program area of interest are invited to participate in the pre-placement meeting(s), potential career goals can be developed. The vocational educator should serve as either an immediate member of

the cooperative, multidisciplinary team or as a resource person providing input to the CSET team. The vocational teacher has valuable information regarding the scope of the program and the necessary prerequisite skills for success in the program. This input provides valuable information for the CSET team.

Should the assessment indicate a need for support services (for example, medical, psychological, social and/or personal services or work adjustment training), the appropriate school and community personnel need to be notified. Any identified needs for physical modifications of equipment or facilities should be planned for and in place when the student begins the vocational or occupational training program.

The IEP conference is scheduled after all available information has been accumulated and the student's area of career interest has been tentatively determined. At the time of the IEP conference, the CSET personnel, parent(s), and the student (where appropriate) agree to place the vocational program choice on the IEP.

As a result of the assessment/evaluation process, students should have a better understanding of their aptitudes, abilities, and interests related to potential career goals. Hopefully, this understanding will allow them to enter formal employment training with feelings of readiness and expectations for success.

Vocational Placement Processes

The process for vocational education placement of handicapped students should be considered after adequate and appropriate assessment data have been gathered, exploratory information and experiences have been provided, and the desired program choice has been reviewed by CSET personnel, including a vocational staff representative, parents and the student.

A wide variety of vocational programs and supportive services are provided so that students having varying degrees of disabilities can be accommodated. The severity of some student's handicaps may restrict their participation in regular vocational education programs; but at all times, the student must be placed in the least restrictive environment as mandated by P.L. 94-142.

Currently, there are four basic delivery systems that provide vocational education programs for students in the School District of Philadelphia. The delivery systems are located in (1) four area vocational technical schools, (2) twenty-one comprehensive high schools and seven junior high schools, (3) two skills centers, and (4) fourteen special education centers and alternative program settings.

Handicapped pupils, their parents and/or teachers may request access to approved vocational programs. Options for the vocational education of any handicapped pupil should be explored

at the school in which the pupil is enrolled before seeking access to the Skills Centers and Area Vocational Technical Schools. The following procedures will ensure that requirements for nondiscriminatory access to vocational programs by handicapped students will be met. Further delineation of these procedures to clarify staff responsibilities is encouraged, but it is important that the essential framework and sequence be maintained.

Procedures for Admitting Handicapped Students to Comprehensive High Schools

1. Students, parents or school-based staff may request access to vocational programs in the comprehensive high schools. Exploratory visits to specific programs may be arranged by the principal and/or CSET members for groups of pupils and their parents.

2. The CSET at the comprehensive high school is responsible for gathering and reviewing the evaluation of the student in order to determine the appropriateness of the specific program chosen by the student and his/her parents.

3. A representative from the Department of Vocational Education should be present at the time the CSET reviews pupil records and recommends appropriate vocational placement.

Procedures for Admitting Handicapped Students
to Area Vocational Technical Schools

1. Applications are made available to pupils and their parents at their home school. Exploratory visits may be arranged for groups of pupils and their parents by the home school representatives.

2. Applications to the A.V.T. Schools are completed at the A.V.T. School by the student. Applications are submitted to the A.V.T. School during the time period designated by the Field Operations calendar of organization for admission to vocational technical schools. A copy of the completed application is sent to the home school.

3. a) If the applicant is suspected to be handicapped, the identification process is initiated at the home school as per special education procedures. If the handicapped is confirmed, the CSET folder with a copy of the application to the A.V.T. School is sent to the District Review Committee (District 2 for application to Bok, District 4 for applications to Dobbins, District 5 for applications to Mastbaum and District 6 for applications to Saul.)

   b) If the applicant is known to be handicapped, the CSET folder with a copy of the application to the A.V.T. School is sent to the District Review Committee (District 2 for applications to Bok, District 4 for applications for Dobbins, District 5 for applications to Mastbaum and District 6 for applications to Saul.)

4. The District Review Committee meets to review applications to the A.V.T. Schools from handicapped pupils. Two representatives (academic and shop persons) from the A.V.T. School will be required to attend this meeting.

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5. The District Review Committee decides:

   a) to admit the handicapped pupil to the A.V.T. School - full time or shared time (representatives from the A.V.T. School may carry copies of documents and records in the CSET folder back to the A.V.T. School at this point): or

   b) not to admit to the A.V.T. School and makes alternative recommendations for program and placement (Skills Center, comprehensive high school or special education center with vocational programs); or

   c) to request further evaluation from vocational education specialists or from the CSET. These evaluations will be returned to the District Review Committee and the admissions procedure will be resumed from step 4 above.

6. A visit to the A.V.T. School may be arranged by the home school representative to have the parent and pupil review site and program prior to the IEP conference.

Procedures for Admitting Handicapped Students to Skills Centers

1. Applications are made available to pupils and their parents at the home school. Exploratory visits may be arranged for groups of pupils and their parents by the home representatives.

2. Applications to the Skills Centers are completed at the home school.

3. a) If the applicant is suspected to be handicapped, the identification process is initiated at the home school as per special education procedures. If the handicap is

confirmed, the CSET folder with the application to the Skills Center is sent to the District Review Committee in District Office (District 6 for applications to A. Philip Randolph or District 8 for applications to A. Alvin Swenson.)

b) If the applicant is known to be handicapped, the CSET folder with the application to the Skills Center is sent to the District Review Committee in the District Office (District 6 for applications to A. Philip Randolph or District 8 for applications to A. Alvin Swenson.)

4. The District Review Committee meets to decide on applications to the Skills Centers from handicapped pupils. A representative from the Skills Center is requested to attend this meeting.

5. The District Review Committee decides to:

   a) admit to the Skills Center; or

   b) not to admit to Skills Center and make alternative recommendations for placement; or

   c) request further evaluation from vocational education specialists assigned to the Divisional Career or from the CSET, and return to District Review Committee, Step 4 above.

6. If the student is admitted to the Skills Center the representative from the Skills Center carries copies of CSET evaluation reports to the Skills Center.

7. Visit to Skills Center may be arranged by home school representative to have parent and pupil review site and program prior to the IEP conference.

Vocational Placement Options

There are seven major vocational curricula from which students may choose a program of study. They are Agriculture Education, Business and Office Education, Distributive Education, Health Occupations, Home Economics, Trade and Industrial Education, and Technical Education. A complete listing of the 97 vocational program curricula currently offered in the School District of Philadelphia follows as Appendix A. The listing is organized to include the following information: the course title, the course description, the United States Office of Education Code Number (U.S.O.E.), and the Pennsylvania Vocational Education Management Information System Code number (VEMIS).

It is expected that the "least restrictive environment" for many handicapped students may be regular vocational education programs. Such placements may require identifying procedures for modifying existing "regular" vocational programs, especially in terms of creating educational opportunties relating to new and emerging entry level job opportunties. The competency-based vocational instruction (CBVI) is a key procedure in modifiying current instructional programs. It is felt that successful attainment of program goals by handicapped students is greatly enhanced by the use of CBVI and supportive services.

Vocational Training Through Competency Based Vocational Instruction

Vocational educators are faced with the challenge of teaching students entry-level job skills that respond to technological advances and changing work force needs. It is important for vocational teachers to determine the criteria for successful performance of specific job skills and to know when and how to assess those skills effectively. Vocational teachers need to know how the labor market in certain occupations will vary and how their programs can adjust to meet changing labor requirements. Special education teachers are also faced with the challenge of teaching students entry-level job skills and the abilities to perform effectively in the world of work.

The use of competency-based vocational instruction (CBVI) and local employer advisory committees meets these challenges. Current information provided from the advisory committees on an ongoing basis can be easily synthesized into existing CBVI curriculum. The format, approach, and style of CBVI is especially suited to special needs learners.

Competency-based vocational instruction offers a systematic and flexible instructional approach for addressing the challenge of changing work skills. CBVI is responsive to the different learning characteristics and learning styles of students and can incorporate a variety of teaching strategies. CBVI spells out

performance requirements in the form of objectives and provides step-by-step directions which lead students toward competency, or successful demonstrated performance of job tasks. CBVI is a flexible, systematic approach in which students work at their own pace in an individualized program. Using a sequence of performance objectives and learning experiences or activities, students work toward successful performance of occupational tasks. Their performance is evaluated on the basis of criteria stated in the performance objectives.

Competency-based instruction is an approach to vocational education in which the student is required to demonstrate mastery of identified tasks in order to achieve entry-level competency for an occupation. Actual performance of a task insures that the student has not only the cognitive knowledge required but also the ability to perform operations that are essential to the job.

The following characteristics of CBVI are especially pertinent to special needs learners:

1. CBVI programs are based upon the employer-verified competencies needed by entry-level workers in specific occupations. The skills, knowledge, behaviors, and attitudes are demonstrated by the students so that the teacher can assess actual performance against specific evaluation criteria.
2. Students know the learning objectives and evaluation

criteria before they start using the instructional materials for each task. Performance objectives define the needed skills and the criteria to be used for evaluation. Students can assess, for themselves, if mastery has been achieved.

3. The learning process and instructional materials are individualized. The student's program is self-paced and learning activities are tailored to meet individual learning styles and characteristics. Students are provided with simulated situations in order to practice and demonstrate their skills in an occupational setting.
4. The student participates in planned supplementary activities and uses resources designed to reinforce the learning activites. The student does not work alone all of the time and frequently participates in demonstrations and other group activities.
5. The instructional program is designed to provide immediate evaluation and feedback after each learning experience. Specific, criterion-referenced evaluation devices are used to assess the student's progress and performance.

6. The operational units are self-contained and include all of the information essential to accomplish the expected performance.

7. Assessment of the student's performance is used as the primary source of evidence for determining entry-level competency. Objective evaluations of the student's knowledge, skills, performance and attitudes are completed prior to certifying that the student is competent to perform entry-level tasks within a given occupation.

A sample chart of an Electronics Core CBVI Curriculum and a sample Student Task Completion Report follow.

Electronics Core Curriculum
Competency/Task Chart

Tasks

Competencies

Use Basic Electronic Theories and Laws 1.0	Use Basic Arithmetic 1.01	Demonstrate Knowledge of Basic DC Theories and Laws 1.02			
Apply Electronics Safety Standards 2.0	Maintain Personal Safety Standards 2.01	Maintain Lab Safety Standards 2.02	Safely Use Equipment 2.03	React Properly to Emergencies 2.04	
Identify Electronic Components and Circuit Configurations from Schematic Diagrams and Pictorials 3.0	Identify Electronic Components 3.01	Identify Electronics-Related Hardware 3.02	Identify Circuit Configurations 3.03	Read and Interpret Basic Schematics with Specifications 3.04	
Apply Basic Electronic Theories and Laws to Calculate Circuit Characteristics 4.0	Calculate the Characteristics of Basic DC Circuits 4.01	Demonstrate Knowledge of Basic AC Principles 4.02	Calculate Characteristics of Basic AC Circuits 4.03		
Use Fabrication Equipment, Make Tests and Take Measurements 5.0	Use Proper Soldering Techniques 5.01	Make and Maintain Printed Circuit Boards 5.02	Use Electronic Measuring Equipment 5.03	Use Electronic Generating Equipment 5.04	Measure the Characteristics of Basic DC Circuits 5.05	Measure the Characteristics of Basic AC Circuits 5.06
Recognize the Application of Basic Principles to Specific Circuits, Devices and Circuit Applications 6.0	Apply Basic Principles to Specific Circuit Applications 6.02	Apply Basic Principles to Specific Semiconductor Devices 6.03	Apply Basic Principles to the Understanding of Digital Electronics 6.04		
Maintain Trade Professionalism 7.0	Maintain Technical Competency 7.01				

STUDENT TASK COMPLETION REPORT

REPORT # A0SP0302 — A. PHILIP RANDOLPH SKILLS CENTER — VERSION

STUDENT TASK COMPLETION REPORT — 12/17/80

JONES JOHN R
2446 E ANY STREET
ANY CITY, STATE 19125

HOME SCHOOL: ANY SCHOOL
BIRTHDATE: 10/28/1962
ENROLL DATE: 08/1978
STATUS: ACTIVE

PROGRAM: ELEC. CONSTR.

DAYS ATTENDING: MO TU WE

	TASK OR SKILL PROFICIENCY	STARTED	FINISHED	HOURS
824.001	INSTALL A TWIST TYPE SOLDERLESS CONNECTOR		04/03/79	
824.002	INSTALL A SCREW TYPE SOLDERLESS CONNECTOR		04/03/79	
824.003	WIRE A THREE WIRE GROUNDED PLUG		04/03/79	
824.004	UNDERSTAND ELECTRONS THEORY		04/18/79	
824.005	UNDERSTAND MAGNETIC PRINCIPLE		04/18/79	
824.006	UNDERSTAND ELECTRICAL PRODUCTION.MAGNETIC		04/18/79	
824.007	UNDERSTAND ELECTRICAL PRODUCTION.CHEMICAL		04/03/79	
824.008	CHECK LINE VOLT IN FUSE PANEL W/NEON TESTER		04/03/79	
824.009	CHECK MAIN FUSES IN FUSE PANEL W/NEON TESTER		04/03/79	
824.010	UNDERSTAND ELECTRICAL PRODUCTION.LIGHT		04/18/79	
824.011	UNDERSTAND ELECTRICAL PRODUCTION.HEAT		03/14/79	
824.012	REPLACE DEF CART FUSES IN FUSE PANEL PULLOUT		12/19/78	
824.013	UNDERSTAND CONDUCTORS & INSULATORS		03/14/79	
824.014	UNDERSTAND SERIES CIRCUIT DC		05/16/79	
824.015	CHECK CART FUSES W/CONTINUITY TESTER		04/03/79	
824.016	INSTALL CARTRIDGE FUSES IN A SAFETY SWITCH		04/03/79	
824.017	RESET A TRIPPED CIRCUIT BREAKER		04/03/79	
824.018	CHECK A FUSE WITH AN OHMMETER		04/03/79	
824.019	CHECK A FUSE WITH A VOLTMETER		12/19/78	
824.020	REPLACE A BURNT OUT FUSE LINK		04/03/79	
824.021	TEST INSULATION RESISTANCE OF MTR W/A MEGGER		04/03/79	
824.022	MARK A MOTOR FOR DISASSEMBLY		03/14/79	
824.024	REMOVE A MOTOR FROM ITS MOUNT		03/14/79	
824.025	DISASSEMBLE A MOTOR		04/03/79	
824.028	INSTALL A BALL BEARING ON A ROTOR		04/03/79	
824.031	REASSEMBLE A MOTOR		04/03/79	
824.033	REPLACE BRUSHES IN A MOTOR		04/03/79	
824.035	REMOVE A SET SCREW TYPE PULLEY FROM A MOTOR		04/03/79	
824.036	INSTALL A SET SCREW TYPE PULLEY ON A MOTOR		04/03/79	
824.038	INSTALL A KEY WAY TYPE PULLEY ON A MOTOR		05/16/79	
824.039	CONNECT DUAL VOLT. REPULSION MTR FOR LOW VOL		04/18/79	
824.040	CONNECT A DUAL VOLTAGE REPULSION MOTOR FOR H		04/18/79	
824.041	CONNECT DUAL VOLT CAPACITOR MTR FOR LOW VOLT		04/18/79	
824.042	CONNECT A DUAL VOLTAGE CAPACITOR MOTOR FOR H		04/18/79	
824.044	CONNECT A THREE PHASE "Y" CONNECTED MOTOR FO		03/14/79	
824.047	REVERSE A REPULSION MOTOR		04/18/79	
824.048	REVERSE A THREE PHASE MOTOR		04/18/79	
824.051	REVERSE A TWO PHASE MOTOR		12/19/78	
824.052	REPLACE A DEFECTIVE SINGLE POLE MANUAL MOTOR		04/18/79	
824.053	REPLACE A DEFECTIVE LIMIT SWITCH		04/18/79	
824.054	REPLACE A DEFECTIVE HAND-OFF-AUTO SWITCH		04/18/79	
824.056	REPLACE A DEFECTIVE THREE PHASE MANUAL MOTOR		12/19/78	
824.060	REPLACE A DEFECTIVE CONTROL COIL IN AN ACROS		04/18/79	
824.063	WIRE LIMIT SW TO ACROSS-THE-LINE STARTER		05/16/79	
824.064	WIRE STO/STA PBUTTON STA TO ACROSS-THE-LINE		04/18/79	
824.066	MEAS MTR RUNNING CURRENT W/SNAP-ON VOLT-AMP-		04/18/79	
824.068	TEST MTR FOR GRNDS W/ANSNAP-ON VOLT-AMOP-OHM		03/14/79	

Supportive Services

Special educators use the term "related services" and vocational educators use the term "supportive or support services"; however, both terms have basically the same meaning. The appropriate utilization of related/supportive services often determines the success or failure of a handicapped student in a vocational program. Related services are described in P.L. 94-142, The Education for All Handicapped Children Act of 1975, while supportive services are described in P.L. 94-482, The Vocational Education Amendments Act of 1976.

Supportive/related services are those educational and noneducational services that are necessary for a handicapped child to benefit from an "appropriate" educational program as documented on the IEP.

The Rules and Regulations related to P.L. 94-142 lists such related services as--

- transportation,
- speech pathology and audiology;
- psychological services;
- physical and occupational therapy;
- recreation;
- early identification and assessment;
- counseling services;
- medical services for diagnostic or evaluation purposes;

- health services;
- social work services in schools; and
- parent counseling and training.

The supportive services traditionally provided by vocational education as identified in P.L. 94-482 include, in addition to those previously listed are as follows:

- supportive instruction for individual students in cooperation with the regular instructor (and individualized assistance in the classroom or laboratory),
- supportive educational services such as assistance from an interpreter, note taker, direct reader, tutorial aide, bilingual specialist, or attendant for the physically handicapped,
- specialized vocational counseling and guidance services, and,
- job placement and follow-up. (Davis & Ward 1978)

The development of effective related/supportive services is a key element of the school district's career planning and vocational education programming for handicapped students. The establishment of a vocational rescurce room program and the use of paraprofessional training assistants have provided a major improvement to Philadelphia's vocational programs. In addition, for matters related to vocational programs, each district has

designated an instructional advisor to provide direct coordination between the district office and the school operating the vocational program.

Roles for supportive services personnel are identified and respective responsibilities delineated in the Supportive Services Personnel role specific manual. The linkage of related/ supportive services personnel with instructional staff greatly improves the delivery of services to handicapped students.

REFERENCES

References

Engleman, V.S., and Moore, J.J., editors. Administrators Manual, Programming for Handicapped Students At The Secondary Level: Responding to Public Laws. Salt Lake City, Utah: Southwest Regional Resource Center, Department Special Education, University of Utah, 1977.

Albright, L. Administering Programs for Handicapped Students. Arlington, Va.: American Vocational Association and The National Center for Research in Vocational Education, 1979.

Andersen, L. H.; Barner, S. L.; and Larson, H. J. "Evaluation of Written Individualized Education Programs," edited by P. M. Swatsburg in Readings in Administration of Special Education. Guilford, Conn.: Special Learning Corporation, 1980.

Bateman, B. "Prescriptive Teaching and Individualized Education Programs," edited by R. Heinich. In Educating All Handicapped Children. Englewood Cliffs, N. J.: Educational Technology Publishing Company, 1978.

Dahl, P. R., Appleby, J. A. and Lipe, D. Mainstreaming Guidebook for Vocational Educators. Salt Lake City, Utah: Olympus Publishing Company, 1978.

Davis, S., and Ward, M. Vocational Education of Handicapped Students: A Guide for Policy Development. Reston, Va.: Council for Exceptional Children, 1978.

Davis, W. E. Educator's Resource Guide to Special Education. Boston, Mass.: Allyn and Bacon, Inc., 1980.

Demos, E. S., and Johnson, Carole M. A Guidebook for State and Local Planning for Implementation of Vocational Education Programs for the Handicapped. The National Center for Research in Vocational Education, Ohio State University, 1978.

Educating All the Handicapped: What the Laws Say & What Schools Are Doing. Arlington, Va.: National School Public Relations Association, 1977.

"Education for the Handicapped: Individualized Education Program of P.L. 94-142." Edited by P. M. Swatsburg. In Readings in Administration of Special Education. Guilford, Conn.: Special Learning Corporation, 1980.

Geiser, R. P. "The I.E.P. Delemma: Obstacles to Implementation." In Readings in Administration of Special Education. Edited by P. M. Swatsburg. Guilford, Conn.: Special Learning Corporation, 1980.

Greenan, J.P., ed. Handbook of Special Vocational Needs Education. Rockville, MD: Aspen Systems Corporation, 1980.

Meers, G. D., ed. Interagency Corporation and Agreements Policy Paper Series: Document Four. Urbana-Champaign, IL: Leadership Training Institute/Vocational and Special Education, University of Ilinois, May, 1980.

McKinney, L. A., and Seay, D. M. Development of Individualized Education (IEPs) for the Handicapped in Vocational Education. Columbus: The National Center for Research in Vocational Education, The Ohio State University, 1979.

Phelps. L. A., and Batchelor, L. J. Individualized Education Programs (IEPs): A Handbook for Vocational Educators. Columbus: National Center for Research in Vocational Education, Ohio State University, 1979.

Schleifer, M. J. "Parents and the I.E.P." In Readings in Administration of Special Education. Edited by P.M. Swatsburg. Guilford, Conn.: Special Learning Corporation, 1980.

Swartz, S. L. "Mainstreaming News: The I.E.P. Question." Edited by P. M. Swatsburg. In Readings in Administration of Special Education. Guilford, Conn.: Special Learning Corporation, 1980.

Vasa, S. F. "Future Heads of Vocational Education Serving Special Needs Students." Journal of Vocational Special Needs Education, Fall, 1980.

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MONITORING AND EVALUATION

Monitoring

Monitoring activities are designed to ensure that specific regulations and procedures are being carried out. For example, state education agencies are required to establish monitoring procedures to assess the degree to which local education agencies are meeting the requirements of P.L. 94-142. At the local level, monitoring activities are closely related to the evaluation plan, which is used as a framework for identifying relevant monitoring procedures. In Philadelphia, this plan is called the Philadelphia Intermediate Unit Plan.

Monitoring is not the responsibility of one person or one specific personnel group. Just as a multidisciplinary approach is needed to identify and implement appropriate programming for special needs youth, the same multidisciplinary approach is required for effective monitoring of these programs once they are in place.

The local building principal is the most immediate monitor of programming for special needs youth. The rapid expansion of programs for handicapped students at secondary levels in senior high schools, however, has resulted in many new responsibilities for personnel in the schools and an in-depth, in-school involvement of special education staff at the district level. Central administrative and supervisory personnel in every programmatic area in the school district now interact with

programs serving handicapped students. Where handicapped students are served in local schools, administrative and supervisory personnel provide technical support to principals in much the same manner as they provide support for nonhandicapped students.

For example, the Office of Curriculum and instruction staff provide technical support and monitor programs for all mildly handicapped students in the areas of curriculum development and instruction. The Division of Special Education and Division of Career Education will continue to provide staff development activities to facilitate the interaction of all central office personnel with handicapped students. Recently the Division of Special Education has undertaken a decentralized approach; each of the respective district superintendents and district special education administrators are now responsible for the monitoring of student placements in special education programs.

Technical support is provided by the Division of Special Education to facilitate district-based activities.

Evaluation

The local education agency establishes policies for an annual evaluation of vocational education programming for handicapped students. Through evaluation, the effectiveness of programs and services are reviewed, and information needed for any revisions

is provided.

An appropriate evaluation plan specifies--

- questions to be answered concerning program effectiveness based on program goals;
- data required to answer the evaluation questions;
- methods for obtaining data;
- personnel responsible for conducting the evaluation;
- criteria for determining success; and
- presentation of findings.

Public Law 94-482, The Vocational Education Act Amendments of 1976, requires each state, during the five year period of the state plan, to evaluate in quantitative terms the effectiveness of each formally organized program or project supported by federal, state, and local funds. The evaluation of vocational education programs for handicapped persons is specified. In developing an evaluation plan, the local education agency must consider the following federal criteria for evaluating vocational programs as specified in P.L. 94-482:

- quality and availability of instructional offerings,
- guidance, counseling, placement, and follow-up services,
- capacity and conditions of facilities and equipment,
- employer participation in cooperative programs of vocational education,
- teacher/pupil ratios,
- teacher qualifications.

According to P.L. 94-482, the results of student achievement are measured by criteria such as the standard of occupational proficiency measures, criterion referenced tests, and other examinations of students' skills, knowledge, attitudes, and readiness for work. The results of the success of student employment are measured by the rates of employment and unemployment, wage rates, duration of employment, employer satisfaction with the performance of vocational education students as compared with students who were not enrolled in vocational education programs, and assessment of employee satisfaction with the job.

Information obtained from evaluation should be used to compare program performances and outcomes with intended program goals to identify areas that should be revised or terminated. Revisions could include alterations in program design, changes in program operation, or examination of program components.

APPENDICES

APPENDIX A: The IEP Plan

SUGGESTED CRITERIA FOR IEP TECHNICAL EVALUATION

1. The IEP as a Summary Document

The content of the IEP should include all curricular areas in which the child is receiving special education or modified regular education. The IEP should represent the framework of a student's program and not serve as a total description of every skill and every goal and objective which might be achieved by the student over the course of the year.

2. The IEP as an Instructional Plan

The IEP should consist of information that is useful in providing classroom instruction. The goals and objectives established for the student should describe the skills or knowledge the student will acquire over the year. Establishing a goal that the student will increase .5 years on an achievement test is not instructionally meaningful. Stating that the student will learn 25 new sight words is more appropriate information.

The process of developing the IEP and implementing it in the classroom should be curriculum based. The curriculum serves as the context within which the IEP occurs. This context is the framework in which the student's skills are assessed and described, and from which the goals and objectives are derived. Members of the IEP planning team should be familiar with the total curriculum, so that the range of possibilities for the student may be considered when developing the IEP. The selection of various curriculum elements to meet individual needs is a preferred approach.

3. The IEP as an Integrated Document

The components of each IEP should be tightly interrelated. The information included in the Present Level section should lead the reader to the annual goals, objectives, and evaluation criteria. There should be continuity from one section to the next, moving from a description of the student's present skills to developing appropriate goals and objectives from that description.

4. The IEP as a Vehicle for Communication

The IEP is intended to encourage communication and cooperation among those who have an interest in the student's

IEP Plan Form

DIVISION OF SPECIAL EDUCATION

INDIVIDUALIZED EDUCATION PROGRAM (IEP) PLAN

STUDENT'S NAME (First, Last)	ADDRESS	

SCHOOL	DISTRICT	IEP REVIEW DATE	TODAY'S DATE	DATE OF BIRTH	PUPIL ID

TEACHER(S)	GRADE/PROGRAM

PRIMARY ASSIGNMENT(S) & STATEMENT OF INTEGRATION	STARTING DATE	EXPECTED DURATION OF SERVICE
RELATED SERVICES		

REASON FOR ASSIGNMENT(S)

ADMINISTRATOR/SUPERVISOR RESPONSIBLE FOR PROGRAM (NAME AND TITLE)

ADDRESS	PHONE

THE FOLLOWING PERSONS HAVE PARTICIPATED IN THE EDUCATIONAL PROGRAM PLANNING CONFERENCE

SCHOOL DISTRICT REPRESENTATIVE (NAME AND TITLE)

TEACHER(S)

OTHERS

STUDENT	PARENT

9933 (REV 6/78) THE SCHOOL DISTRICT OF PHILADELPHIA

445828
SCHOOL

progress. To this end, education jargon should be avoided when writing present levels, goals, and objectives. The written IEP should be easily understandable by both parents and professionals.

Present Education Levels

The IEP must include a written statement of the student's present levels of educational performance. Present education levels information should contain instructionally relevant data for each instructional area (e.g., reading, self-help skills). This information should serve as a rationale for the educational program plan that follows.

5. Instructional Areas for which Assessment Information Should Be Reported in Present Levels

Assessment information should be reported for each instructional area in which annual goals are specified. Additional data which is instructionally relevant to the student's overall educational plan may also be reported.

6. Type of Assessment Information to be Reported in Present Levels

The statement of present education levels should go beyond test score reporting. To be instructionally meaningful, the Present Levels section should highlight qualitative and descriptive information about the student's skills. Information derived from informal assessment procedures (such as classroom observations, anecdotal records, teacher-made tests) and criterion-referenced tests is useful for this purpose. It is also advisable to note the sources of information.

7. The Scope of Assessment Data To Be Reported in Present Levels

Rather than detail all of the skills the student has mastered, the Present Levels section should describe the upper limits of abilities and focus on the steps where the student's skills begin to break down. The Present Educational Levels section should include what the student has learned and give direction concerning what the student needs to learn next. It is not an appropriate place to recommend or justify placement.

Annual Goals

The IEP must include a statement of annual goals. Annual goals specify what the student is expected to learn. They

represent broad targets for the student's program and the expected educational growth which may take place over the academic year. Annual goals should be general in scope, yet specific enough to focus instruction in appropriate curricular areas.

8. The Relationship of Annual Goals to Present Levels

Each annual goal should follow from the description of present levels. While a point-to-point correspondence between assessment data and annual goals may not be possible, the goals should be highly related to the supporting assessment information.

9. The Relationship of Annual Goals to Short-Term Objectives

Each annual goal subsumes all of the short-term objectives listed. The annual goal should be a statement of the expected growth the student will make as a result of the achievement of each of the short-term objectives listed under the Annual Goals.

10. The Relationship between Annual Goals and Grade and Curriculum Levels

Annual goals should be independent of specific grade and curriculum levels. Annual goals should address anticipated learning and should not focus on projected gain scores (e.g., movement in developmental age or grade equivalents) or movement within a specific curriculum (eg, "Complete books 4, 5, and 6 in the Ginn Reading Series"). Reference to specific media, methods, and materials may be made in a section of the IEP form reserved for such information.

11. The Number of Behaviors To Be Described by Each Annual Goal

Each annual goal should reflect anticipated learning of more than one behavior except for the IEPs of very low functioning students. These individual behaviors can then be described in short-term instructional objectives.

12. The Scope of Annual Goals

Each annual goal should be more than just a restatement of the curriculum content area. "Displays increased ability in reading" is not recommended as an annual goal. Goals should reflect anticipated growth within the subcategories of the instructional areas. A goal in reading, such as "The student

will improve sight vocabulary skills," would reflect expected learning in a subcategory of reading.

Short-Term Objectives and Evaluation Procedures

The IEP must include a list of short-term objectives and a statement of appropriate objective criteria, evaluation procedures, and schedules for determining, on at least an annual basis, whether the instructional objectives are being achieved. Short-term objectives are derived from the annual goals in each instructional area. They represent smaller, more manageable learning tasks that a student must master on the way to achieving the more general annual goals. As such, they enable the teacher and others to plot the student's progress toward meeting the annual goal. When selecting short-term objectives, the student's learning style should be considered.

13. The Relationship between Short-Term Objectives and Annual Goals

Short-term objectives should be linked to each annual goal statement. They should clearly describe learning tasks which would allow one to determine whether progress is being made toward the annual goal.

14. The Number of Short-Term Objectives that Should Be Written

The number of short-term objectives should be sufficient to adequately represent the tasks necessary for achieving the annual goals. Because short-term objectives represent steps toward achieving an annual goal, there should be sufficient number of them to guide the instructional process. For many annual goals, three or four short-term objectives are sufficient. In cases where more learning steps are required by the student, a greater number of short-term objectives may be useful.

15. Sequencing Short-Term Objectives

The sequence of short-term objectives should be logical. Although the exact sequence of objectives is often an arbitrary matter, many objectives are dependent on the achievement of prerequisite skills that should occur earlier in the sequence of instruction. When the sequence of instruction clearly makes a difference, the short-term objectives should be presented in the appropriate order.

16. Writing Short-Term Objectives

Objectives should be stated in behavioral terms. They should provide a clear description of what the student will be able to do as a consequence of instruction. Action verbs (e g., write, identify, list) assist in expressing short-term objectives in observable and measurable terms.

17. Describing Evaluation Procedures

The evaluation procedures for determining achievement of short-term objectives should be adequately described. They should be described in enough detail to allow other educators to construct and administer the same measure to determine achivement. Criterion referenced measures are recommended for this reason.

18. Quality of Objective Criteria

Objective criteria should be clearly stated. The criterion for acceptable performance of an objective describes how well the learner must perform the specified task to demonstrate mastery. This often takes the form of "...with no more than two out of ten incorrect", or "...80% of the time."

Additional IEP Components

19. Statement of All Educational Programs and Services

The IEP must include a statement of educational services to be provided to the child, including a description of:

a. all special education programs required to meet the unique needs of the child,

b. any special instructional media and materials to be provided that are not normally found in regular education, like braille or talking books,

c. the type of physical education program in which the child will participate (regular or adaptive), and

d. the related services the student will need to benefit from his/her educational program.

20. Projected Dates for Initiation and Duration of Educational Programs and Services

The IEP must include dates for the initiation and duration of services. These dates should be realistic. It may be necessary to indicate that a particular service may begin in September rather than on September 15. A statement of duration of service may be written in such a way that it places contingencies on whether or not the student makes progress slower or faster than expected.

21. Extent to which Child Will Participate in Regular Education

The IEP must include a statement that indicates the extent to which the child will participate in regular education. This statement should be expressed in sentence format. The amount of time that the child spends in regular education should be congruent with the child's ability to participate in regular education. Educational planning should fall within a complete continuum of educational services for the student.

22. Date Scheduled for Determining Achievement of Objectives

The student's IEP must be dated and a review date, within one year of the date of IEP development, must be listed. This, however, represents only minimum compliance with statutory requirements. It is highly recommended that review occur more frequently, if possible, every three to four months. Informal review should occur in the classroom daily or weekly.

Optional IEP Components: Media and Materials

While a statement of specific media and materials to match each objective is not required on the written IEP plan (except when unusual materials not normally found in regular education are being used), some school systems or special education programs may require it. Even when it is clearly optional, many programs will provide a space or column on the IEP form for including or making reference to this information.

Determination of the appropriateness of media/materials for instruction on a short-term instructional objective requires knowledge of the student, the particular subject area, and the instructional resources available.

23. Scope for Describing Media/Materials

In specifying media/materials for each short-term objective or sequence of objectives, IEP writers should describe the

educational materials to be used, such as the portion of a particular math series, but should not describe items of general classroom use.

24. Matching Materials and Objectives

Media/materials should be appropriate for each short-term objective or sequence of objectives for which they are listed. Materials and objectives should be carefully matched. If materials are listed, they should have the same logical relationship with the total IEP that other major sub-components enjoy.

SUGGESTED CRITERIA FOR IEP TECHNICAL EVALUATION CHECKLIST

Individual criteria listed below are identified as being "essential" for legal completeness of an IEP, or as "suggested" for instructional utility.

IEP CRITERIA	YES OR NO	COMMENTS
1. Is the IEP a summary document? (suggested)		
2. Is the IEP an instructional plan? (suggested)		
3. Is the IEP an integrated document? (suggested)		
4. Is the IEP a vehicle for communication? (suggested)		
Is a PRESENT EDUCATION LEVELS section included? (essential)		
5. Is assessment information reported for each instructional area in which annual goals are specified? (suggested)		
6. Does the statement of present educational levels go beyond the reporting of test scores? (suggested)		
7. Does the statement of present educational levels describe the upper limits of the students abilities? (suggested)		
Are ANNUAL GOALS Stated? (essential)		
8. Does each annual goal follow from the description of present levels? (suggested)		
9. Does each annual goal subsume all of the short-term objectives listed? (suggested)		

IEP CRITERIA	YES OR NO	COMMENTS
10. Is each annual goal independent from reference to specific grade or curriculum levels? (suggested)		
11. Does each annual goal reflect anticipated learning of more than one behavior? (suggested)		
12. Does each annual goal reflect anticipated growth within the subcategories of the instructional areas? (suggested)		
Are SHORT-TERM OBJECTIVES, CRITERIA, and EVALUATION PROCEDURES AND SCHEDULES stated? (essential)		
13. Are the short-term objectives linked to each annual goal statement? (suggested)		
14. Are there a sufficient number of short-term objectives to adequately represent the tasks necessary for achieving the annual goals? (suggested)		
15. Does the sequencing of short-term objectives appear to be logical? (suggested)		
16. Are the short-term objectives stated in behavioral terms? (suggested)		
17. Are the evaluation procedures for determining the achievement of short-term objectives adequately described? (suggested)		
18. Are the objective criteria clearly stated? (suggested)		

IEP CRITERIA	YES OR NO	COMMENTS
ADDITIONAL IEP COMPONENTS (essential)		
19. Does the IEP include a statement of educational services to be provided to the child? (essential) This includes the following: a. all special education programs b. special instructional media and materials c. type of physical education program d. related services		
20. Does the IEP include dates for the initiation and duration of services? (essential)		
21. Does the IEP include a statement that indicates the extent to which the child will participate in regular education? (essential)		
22. Is the IEP dated and a review date given? (essential)		
OPTIONAL IEP COMPONENTS: MEDIA AND MATERIALS (suggested)		
23. Are the media and materials described appropriate in scope? (suggested)		
24. Are the media and materials described appropriate for the short-term objectives? (suggested)		

APPENDIX B: ALPHABETICAL LISTING OF SCHOOL DISTRICT OF PHILADELPHIA COURSE DESCRIPTIONS

Agriculture — VEMIS NUMBER

Agriculture - Business
01.0200 — 401
This course prepares learners for employment in agricultural business activities.

Agriculture - Machine Repair
01.0300 — 402
A course designed to train students to enter occupations dealing with the selection, operation, maintenance, repair, and sale of agricultural machinery and equipment.

Agriculture - Other
All Agriculture and Horticulture subjects not classified on the previous list.

Agricultural Products
01.0400 — 403
For the student who desires jobs in the broad range of plant sciences.

Agricultural Resources
01.0600 — 405
This course teaches the management of resources for public use which includes training and experiences in the following areas: air, soil, water, wildlife, forests, and parks.

Animal Technology
01.0600 — 405
A course designed to be coupled with crop production or laboratory animal techniques course, depending upon the occupational goal of the student.

Horticulture
01.0500 — 404
This course provides a wide range of experiences for students in ornamental horticulture.

Turf Management
01.0100 400
This is a course for students desiring to enter careers in the turf industry. Instruction includes soil science, turf establishment, and turf maintenance.

Business Education

Accounting
14.0100 700
The study of the principles, procedures, and theory of organizing, maintaining, and auditing business and financial transactions.

Bookkeeping I
14.0100 700
The study of the basic principles of maintaining financial records for a business, with some personal-use applications.

Bookkeeping II
14.0100 700
The study of advanced bookkeeping principles as they applies to partnerships and corporations.

Business Communications
14.0300 702
The study of the skills, techniques, and knowledge necessary for effective oral and written communication.

Business Economics
14.0300 702
The study of the purposes, functions, financing, and types of business organizations.

Business English
14.0100 700
The study of the application of English principles - grammar, spelling, punctuation, and vocabulary - in producing effective business correspondence.

Business Law
14.0100 700
The study of the law as it applies to contracts, consumer protection, bailments, and legal rights.

Business Mathematics
14.0100 700
The study of basic mathematics which applies particularly to business problems.

Civil Service/Job Prep
14.0300 702
The study of employment testing by business and civil service agencies. Students are taught how to apply for and secure employment.

Clerical Practice I
14.0300 702
The study of the tasks that are performed by beginning office workers.

Clerical Practice II
14.0300 702
The study of the principles and procedures of using the skills of filing, recordkeeping, typewriting, telephone usage, human relations, office machine operation, and mail processing in business organizations.

Clerical Skills Lab I 702
14.0300
The first phase of a program designed to develop the needed skills required of a clerical worker.

Clerical Skills Lab II 702
14.0300
The second phase of the C.S.L. program which strengthens basic clerical-typing skills on an individual basis.

Introduction to Data Processing
14.0200 701
The study of the capabilities and limitations of computers. Included are some of the social, vocational, economic, and educational implications of computers and microcomputers.

Consumer Affairs
14.0100 700
The study of issues and problems facing today's consumer in our economic society.

Data Processing
14.0200 701
The study of computers and computer programming as they apply to business situations. Hands-on training of unit record and electronic equipment is included.

Introduction to Business
14.0100 700
The study of the place and purpose of business in our economic system, emphasizing the problems of business, consumer credit and buying, and related topics.

KeyPunch
14.0200 701
A program designed to develop the necessary skills in the operation of a keypunch machine.

Office Practice
14.0700 706
The study of the principles and procedures involved in the application of secretarial skills in dictation-transcription, records management, communication, telephone usage, use of reference materials, and human relations.

Recordkeeping
14.0100 700
The study of preparing and maintaining records for cash and banking, payroll, billing, accounts receivable, accounts payable, and other records within the accounting system of a business.

Records Management
14.0300 702
The study of filing, storing, and retrieving information, including filing systems, microfilming systems, saving and disposing of records, equipment, and space layout.

Shorthand I
14.0700 706
The study of the principles and techniques of recording dictation in symbol or other abbreviated form, and the conversion of these forms to typewritten documents.

Shorthand II
14.0700 706
A program designed to strengthen basic shorthand and transcription skills in order to prepare students for stenographic or secretarial positions.

Simulated Office 706
14.0700
A program designed to simulate a real office environment in which the student follows the work flow of a business firm.

Small Business Management
14.0100 700
The study of basic management principles and procedures involved in the operation of small business concerns. All of the complexities of small business ownership are examined.

Stenoscript/Typewriting
14.0700 706
The study of a system of speedwriting which uses letters of the alphabet rather than symbols.

Stenotype
14.0700 706
A program designed to train a student to take dictation at a high rate of speed on a machine rather than by writing shorthand outlines.

Typewriting I
14.0300 702
The study of the knowledge and skills necessary to operate a typewriter to produce personal and business documents.

Typewriting II
14.0300 702
An in-depth study of the more practical on-the-job typing procedures with stress placed on speed, accuracy, problem solving, and production.

Word Processing/Typing III
14.0700 706
The study of the knowledge and skills necessary to operate automated typing and

transcription equipment, including the planning and production of correspondence, reports, and other documents.

Distributive Education

Cooperative Marketing and Distributive Education.
A senior year capstone program that provides paid, school-supervised, part-time employment through on-the-job training in entry-level jobs in the field of distribution. Curriculum content same as MDE 2.

Cooperative Marketing and Distributive Education I (MDE 1)
04.000 800
An introductory course to the broad field of distribution stressing the merchandising of goods and services, mastery of basic selling techniques and product information, as well as the awareness of entry-level and promotional career opportunities and the development of attitudes, knowledges and skills leading to job success.

Cooperative Marketing and Distributive Education II (MDE 2)
04.000 800
This course is a continuation of MDE 1 with special emphasis on such topics as the economics of distribution and business management and organization. It also includes store organization, fashion design, and display.

Hotel/Motel Management
04.1100 835
A course designed to train students for employment in a variety of entry-level hotel/motel positions, including work at the front desk as well as that related to the operation of restaurants and gift shops.

Olney/Frankford Naval Forms and Publications Program
14.1900 875
An off-school-site program available to Olney and Frankford seniors who are economically disadvantaged. Students obtain

paid on-the-job training in a variety of warehousing occupations. Classes as well as job training occur at the agencies premises.

Warehousing/Materials Handling
04.1900 875
A course designed to train students for entry-level jobs involving the receiving, stocking, shipping, and freight handling of goods.

Health Occupations

Dental Assistance
07.0101 300
To prepare a person to assist the dentist at the chairside.

Health Assistant 384
07.0906
To prepare a person to serve as liaison between professional health workers and recipients of health services.

Health Related Technology
07.9901 386
A course designed for those students whose career objective is one in the health field which requires most secondary education.

Medical Laboratory Assistant
07.0203 312
To prepare a person to work under supervision of Medical Technologists.

Nurse Assistant Aide
07.0303 322
To prepare a person to perform simple tasks involved in personal care of individual receiving nursing service.

Useful Home Economics

Comprehensive
09.0101 600
Instruction includes the five areas: Human Development and Family, Home Management, Food and Nutrition, Textiles and Clothing; Housing

and Home Furnishings.

Food and Nutrition
09.0107 606
Instruction includes the significance of food; nutritional needs; characteristics of food; consumer decision making; consumer practices; food management.

Home Management Family Resources
Consumer Decisions
09.108 607
Students are taught the decision making processes, the role of the consumer and resource management.

Housing and Home Furnishings
09.0109 608
Students are taught the needs; values; consumer decisions and financing; personal expressions and safety in furnishings and equipment; skill in the maintenance of the home.

Human Development and the Family,
Including Child Development
09.0106 605
Instruction includes personal development; roles of the individual and family; marriage and parenthood; care of the elderly; child care and development.

Textiles and Clothing
09.0103 602
Instruction includes textile theory; production; clothing management; appearance and grooming; appreciation of style and fashion; sewing skills.

Gainful Home Economics

Baker
17.2901 143
Specialized classroom and practical work experiences associated with the preparation of bread, cakes, and other bakery products.

Child Care Services
09.0201 500
This course prepares students for employment in the following: Child Care Aide; Child Care Assistant; Foster Care Parent; Companion to the Elderly; Homemaker's Service Specialist.

Clothing Management Production and Services
09.0202 501
This course prepares students for employment in the following: Wardrobe Maintenance Specialist; Commercial and Custom Garment and Apparel Construction; Alternationist; Fabric & Fashion Coordinator.

Food Management Production and Services
09.0203 502
This course prepares students for employment in the following: Supervised Food Service Worker; Chef/Cook, Food Caterer/Aide; Dietetic Aide/Assistant; Food Tester; Waitress/Waiter.

Home Furnishings Equipment and Services
09.0204 503
This course prepares students for employment in the following: Home Service Assistant; Interior Designer/Decorator; Custom Upholsterer and Slipcover Seamstress; Home Equipment Tester.

Institutional and Home Management Services
09.0205 504
This course prepares students for employment in the following: Homemaker's Assistant; Consumer Aide Assistant; Therapeutic Recreational Assistant, Executive Housekeeper.

Industrial Arts

Construction
A study of construction as an essential element of the world of work. Typical

activities include use of common construction tools and work with concrete, masonry, lumber, and other building materials.

Industrial Materials
A study of how industry processes materials through manufacturing and construction. Typical activities include use of common hand and power tools and work with wood, metal and other materials.

Industrial Materials Testing
A study of industrial materials through various testing techniques. Typical activities include preparing test specimens and submitting them to tests such as bending, torsion, shear, compression, etc.

Manufacturing
A study of manufacturing as an essential element of the world of work. Typical activities include operation of various tools and power machines for wood, plastic and metal.
A study of power technology as an essential element of the world of work. Typical activities involve the operation and servicing of engines, and electrical, mechanical, and hydraulic devices.

Visual Communications
A study of visual communications as an essential element of the world of work. Typical activities include sketching, mechanical drawing, photography, offset, letterpress, and printing by silk screen.

Trade & Industrial

Air Conditioning and Refrigeration and Heating
17.0100 001
Instruction includes fundamentals, theory, installation, and servicing procedures on domestic, and commerical air conditioners, refrigeration units and automatic heating systems.

Appliance Repair
17.0200 005
Learners are taught the necessary theory and skills used in installing, diagnosing, and repairing both small and large consumer products appliances).

Architectural Drafting
17.1301 142
Prepares students to make working and presentation drawings as well as model making of residential and commercial/industrial buildings.

Auto Body and Fender
17.0301 008
This course trains learners to fix dents in auto and truck bodies by reshaping the metal, filling dents, and replacing damaged parts.

Automotive Mechanics
17.0302 009
Provides training in troubleshooting and repairs of automotive engines.

Automotive Occupations
Training in specialized automotive areas such as automobile air conditioning repair and/or transmission repair.

Automotive Specialist
17.0303 010
This is a course designed to prepare students, who have a basic knowledge of auto mechanics, with skills in troubleshooting and repair of automatic transmissions, and automotive air conditioners.

Building Construction Occupations
Basic classroom and practical experiences to be taught as a general industrial curriculum concerned with the erection and installation of buildings and other structures using assorted materials such as metal, wood, stone, brick, glass, concrete, or composition substances.

Building Maintenance
17.1091 039
Students develop skills in first and second echelon maintenance and repair of buildings.

Building Sanitation
17.1100 040
Students learn to perform the tasks required for cleaning office buildings and apartment houses.

Business Machine Repair
17.0600 017
Students develop skills needed to become employed in jobs repairing typewriters (manual and electric), calculating machines, duplicating machines.

Cabinet Making and Millwork
17.3601 110
Development of skills necessary for the construction and finishing of furniture for home, industry, and commercial establishments.

Carpentry
17.1001 027
Carpentry students will learn to read specification and architectural drawings; become familiar with building codes and, in addition, develop skills in the use of tools of the trade.

Type Composition
17.1901 056
The course includes development of skills needed in the printing industry for typesetting.

Commercial Art
17.0700 021
Prepares students for a career in advertising art layout, finished art and illustration, package design, lettering silk screen art, preparation of art for reproduction.

Commercial Photography
17.0900 026
Students learn to use cameras and darkroom equipment to produce photographs that can be used for portraits and advertising.

Computer Maintenance
Instruction includes number system, Boolean algebra, binary logic, computer circuits and components, memory units, and input-output equipment.

Cosmetology
17.2602 085
Preparation for the Pennsylvania State Board Examination for a Beauty Salon Operator's license.

Custodial Services
Instruction includes experiences in the use of hand and power equipment concerned witb all phases of the care and cleaning of buildings

Diesel Mechanic
17.1200 041
Students learn to trouble shoot, and repair diesel systems such as, fuel system injectors, and other components.

Dressmaking
17.3301 102
Specialized classroom and laboratory experiences concerned with the construction, alteration, and fitting of women's apparel.

Duplicating Services
17.1907 126
The specific aim for this course is to train students as operators of duplicating equipment, including spirit mimeograph, and small offset presses, as well as addressing and collating equipment.

Electrical Construction Maintenance
Classroom and shop experiences concerned with layout, assembly, installation, testing, and maintenance of electrical fixtures, apparatus, and wiring used in electrical systems.

Electricity (Industrial)
17.1401 043
Electricity and magnetism, testing and repairing and maintenance wiring, light and power, and repair of motors are areas of instruction in this course.

Foundry
17.2301 070
The principal purpose of a foundry is to prepare sand molds to receive molten metal and thus produce castings.

Floor Covering
17.1094
Learners are instructed in estimating blueprint reading, and laying of resilient and soft floor coverings.

Laundry/Dry Cleaning
17.1600 052
Instruction emphasis is on identifying, marking, entering, sorting, dry cleaning, washing, pressing, bleaching, drying in relation to all types of fabrics.

Meat Cutting
17.2301 072
This course of instruction includes meat cutting, processing, merchandising, inspection, and buying for butcher shops, chain stores, and meat packing facilities.

Machine Shop
17.2302 071
A course designed to give the students knowledge of the operation of the machine tools used in manufacturing.

Masonry Instruction
Includes instruction in the layout and construction of walls, piers, footings, chimneys, lintels, and floor slabs made from concrete, brick, block, (glass, cinder & concrete) and mortar.

Mechanical Drafting
Teaches students to prepare, detail, and assemble drawings for industry to include schematics, orthographic projection, and sections of component parts of machinery and equipment.

Optical Mechanics
17.2103 117
Training in this course provides skills of making eyeglasses to a doctor's prescription.

Packaging and Processing
17.9906
A course for trainable retarded students in which habituation and adjustment to work take place.

Painting and Decorating
17.1005 031
The learner prepares for use and applies all types of finishes for both the inside and outside of a building.

Patternmaking
17.9906 114
Students learn to make objects of wood or metal that are used to make impressions in sand.

Plumbing
Includes instruction in the installation, maintenance, and repair of liquid and gas pipes, fixtures, and fittings, located in residential, commercial, and industrial buildings.

Power Sewing
17.3390 104
Provides theory and laboratory experiences on single and multiple needle machines.

Printing (Hot Type)
17.1902 057
Students develop skills in setting type by hand, justifying lines, and assembling type and cuts in a galley for printing articles. Determining type size, style, measuring copy, use of a composing stick and justifying lines are some of the skills taught in the course.

Printing Occupations
17.1902 057
A course which prepares students with skills in the photographic processes needed for plate making, paste up and line up as used by the printing industry.

Printing (Offset)
17.1902 057
Instruction is given in offset printing and the following operations: composing, paper cutting, duplicating, addressing, collating, stitching.

Radio and TV Repair
17.1503 056
Basic electricity, circuit theory, use of test equipment, construction, wiring and soldering skills are all taught during workshop instruction as well as trouble shooting and repair of consumer elec eq.

Sheet Metal
17.2305 074
Skills such as layout, development, cutting, fabrication of all hand and floor machinery which include cutting, punching, drilling, riveting, forming and crimping metal making. Development and blueprint reading are taught in this course.

Shoe Repair
17.3401 106
All aspects of shoe repairing and rebuilding are encompassed in this course. Included are hand and machine operations needed to perform shoe repairing:

Small Engine Repair
Includes instruction in the maintenance, repair, and application for all makes of two and four cycle internal combustion engines.

Tailoring
17.3302 103
Specialized learning experiences concerned with fabrication and alteration by hand and machine.

Upholstery
17.1305 109
This course covers training in the areas of repairing or replacing damaged or defective upholstery on furniture and in building new upholstered furniture.

Vending Machine Repair
17.9904 119
This course is an electro-mechanical offering in which the student specializes in trouble-shooting and repairing and maintaining coin operated vending machines.

Welding
17.2306 075
Modern methods of metal fabrication and contruction. Including gas AC/DC, TIG and MIG welding.

Technical Education

AudioVisual Communications Technical
16.0691 229
Classroom, laboratory, studio, and practical experience in TV/Radio, Photography production and methods.

Bio-Medical Technology
16.0109 209
Theory of operation, diagnostic operations and repair of electronic/mechanical devices used in the Health Occupations.

Communications Technology
17.1501 048
Students will work with closed circuit TV studio and control room equipment.

Drafting, Architectural
A program of instruction designed to provide the pupil with knowledge and understanding of scientific principles, mathematical concepts, and communicative and technical skills combined with laboratory experiences which are supportive to the architect and the architectural engineer.

Electronics, Technical
17.1500 051
Basic electricity, circuit theory, electronic tubes and circuits, transistors, use of test equipment, technical mathematics, construction, wiring, soldering and shooting are areas of instruction in this course.

Industrial Chemistry
16.0105 205
Instruction in technical analysis of commercial products, including qualitative and quantitative analysis, organic chemistry, and industrial processes are given in this course.

Instrumentation
16.0112 212
Emphasis is on fundamental measurements as well as theoretical and laboratory study of pneumatic and electronic controls including systems applicatings.

Metalworking Occupations
Basic learning experiences to be taught as a general industrial curriculum designed to prepare metalworker capable of fabricating and assembling a variety of products in metalworking occupations including machining, foundry, welding, sheet and plate metals.

GLOSSARY

Academies (Vocational). Vocational and technical school programs that are separately organized and administered ("a school within a school") for the purpose of providing training for disadvantaged potential dropout inner-city youth, unable to qualify for regular vocational schools.

Adapted Physical Education. Physical education programs that are modified in various ways to accommodate handicapped children.

Adult Vocational Education. Education designed for out-of-school youth and adults who have left or completed high school and desire to pursue a vocational education curriculum or course in preparation for entrance into the labor market, or to acquire new or supplementary skills to achieve stability or advancement in their current employment. The programs are primarily part-time but may be full-time.

Advisory Council. A group of persons from inside or outside of the educational profession chosen to advise (with no final decision making power) the school system's chief executive officer and other professional staff members regarding selected aspects of the school system's activity.

Advisory Council For Career Education. In Philadelphia, the group is composed of thirty-three persons representing one or more aspects of community activity (e.g., business, labor, industry, youth services agencies, and other civic services) who are drawn together to provide advisory services to the school system's chief executive officer and other professional staff members regarding the school system's career education activities.

Affect. An individual's feelings, emotions, moods, temperament, and the like. "Lack of affect" is a term frequently used to describe an individual who appears to express no, or minimal, emotions or feelings as a part of overall being.

Anecdotal Record. A report that contains observed behavior of a particular individual.

Annual Goals. These are required by P.L. 94-142 to be a part of each handicapped child's Individualized Educational Program

(IEP). Annual goals are statements of anticipated growth in a pupil's skill and knowledge as a result of participation in an educational program. These goals should be appropriate and feasible for the child to attain during the year, and are developed from an analysis of the particular child's assessed present level of performance.

Appropriate Program. A program of education and/or training for exceptional school-aged persons which meets individual needs as agreed upon by a parent, school district, and/or intermediate unit personnel; or as ordered by a hearing officer; or upon appeal as ordered by the Secretary of Education.

Aptitude. A person's natural talent or ability and readiness to learn in some particular area.

Area Vocational-Technical School (A.V.T.S.). A specialized high school which provides for organized learning experiences in vocational education, for the development of skills, knowledge, attitudes, and work habits in students preparing for entrance into chosen occupational fields.

Assessment. In its broadest sense, this is the process of obtaining as much information as possible from as wide a variety of sources as possible in order to provide a student with appropriate and meaningful education programs.

Attitude. A characteristic manner of feeling that one person has towards another person or thing.

Basic Skills. A term frequently used in referring to education, which emphasizes literacy in language, mathematics, natural sciences, history, and related social sciences.

Blind. A visual handicap of a severe degree. Persons in whom there is visual acuity of 20/200 or less in the better eye with correcting glasses, or a peripheral field so contracted that the widest diameter of such field subtends an angular distance no greater than 20 degrees.

Brain Damage. Those persons who manifest severe behavior and/or learning disorders resulting from a severe insult to the brain as identified by a neurological examination.

Career Development. The gathering of information and the selection of the proper courses to prepare for a chosen career.

Career Education. A way of organizing all education so that students can better understand themselves and how to prepare for a future career.

CETA (Comprehensive Employment Training Act). A federally funded Act to provide comprehensive manpower services throughout the nation. CETA includes the development and creation of job opportunities, training, education, and other needed services so that individuals can secure and retain employment at their maximum capacity.

Cluster. A group of related subjects in which a student may prepare for employment in a specific occupation or related occupations.

Community Awareness. Understanding the political, social, and economic structure of the community.

Competency. Achievement of knowledge, skills, values, and attitudes required for a given task.

Competency-Based Vocational Instruction. An approach to vocational instruction in which the emphasis is upon the student developing and demonstrating specified competencies as measured by performance tests, rather than on only having intellectual knowledge of how to do some thing

Comprehensive High Schools. Schools which offer all academic subjects and may offer one or more vocational education programs.

Course. A planned program of subject matter instruction; such as algebra, typing, Spanish, and so forth.

Course Selection. A procedure by which a student selects courses of study with assistance from parents, teachers, and guidance counselors.

Craft Advisory Committee. A committee composed of representatives who advise one specific program, or all of the programs in an occupational cluster, in one school or in a school system.

CSET (Child Study Evaluation Team). The formal multidisciplinary team composed of the principal, counselor, nurse, instructional advisor, school psychologist, and other requested professionals who meet with the parent to review all data for the purpose of making diagnostic and programming decisions concerning handicapped children or children suspected of having a handicapping condition. Parents are guaranteed the right to participate actively in all evaluation and placement decisions regarding their child.

Deaf. A hearing handicap of a severe degree. Those persons in whom the sense of hearing is nonfunctional for the ordinary purposes of life. This includes the congenitally and adventitiously deaf. The following represents hearing loss as defined by audiometer measurements: (a) Severe hearing loss--60 db to 90 db, and (b) Deaf--90 db or more in both ears.

Decision Making. The skill of applying one's knowledge to a rational process that assesses all available options.

Diagnostic Prescriptive Teaching. A system of teaching in which specific instructional and curricular activities are based upon an assessment, or diagnosis, of an individual child's particular learning strengths and weaknesses

Diagnostic Test. A test designed to pinpoint a particular pupil's relative strengths and weaknesses in a certain subject or modality area.

Dictionary of Occupational Titles (D.O.T.). A publication of the United States Department of Labor which describes and defines

jobs, duties, working conditions, and related information for over 20,000 occupations.

Due Process. Procedural safeguards established and guaranteed by legislation and litigation designed to protect an individual from violations of constitutional rights to an appropriate education.

Economic Awareness. The perception of the relationship of the economic processes in the environment to one's life career decision.

Educational Awareness. The perception of the relationship of education to career and life roles.

Educational Field Experience. Any planned instructional activity which places students at a learning site other than the school building at which they are enrolled for the purpose of obtaining educational experiences not otherwise available.

1. COOPERATIVE VOCATIONAL EDUCATION - Planned instruction developed through a documented cooperative arrangement among school representatives, students, parents, and employers in the community for providing students with the opportunity to alternate in-school academic and vocational instruction with entry-level paid employment in any occupational field. The student's total occupational work experience is planned, coordinated, and supervised by the school in close cooperation with the employer. The following describes the kinds of cooperative vocational education:

a. The specialized fields approach includes cooperative vocational education in agriculture, business, distribution, health occupations, home economics occupations, or trade and industrial education.

b. The diversified occupations approach provides a heterogeneous group of students from more than one vocational education program.

2. WORK STUDY PROGRAM - A program designed to provide financial aid through part-time work for vocational students outside of school hours. The student may perform work in the school system or any other public agency. Work performed

will be adequately supervised and coordinated. Whenever possible, it is desirable to relate the work-study program to the educational program of the student. Generally, job placement should utilize the student's abilitites, interests, and training.

3. WORK RELEASE PROGRAM - A program in which a student is released from school for a portion of the school day, in accordance with existing federal and state laws, to obtain paid employment. The primary purposes of the program are to provide students with income and the values associated with being productive. The type of employment may or may not be related to any future vocational interests or prior schooling or training.

4. GENERAL FIELD EXPERIENCE - Any instructional activity which places a student in a field experience program which is not primarily vocational in nature but is designed to promote the student's general educational development. The program is usually nonpaid and offered to orient the participants to the nature of the community outside the school. The intent is to enhance the general social and intellectual development of students and not to provide vocational training for them. Such programs may vary greatly, but all share the common interest of facilitating the general learning objectives of the school as distinguished from its vocational objectives.

Emotional Disturbance. Those persons who manifest a severe major affective psychosis which is characterized by a single disorder of mood, such as either extreme elation or depression, that dominates the mental life of the person and is responsible for whatever loss of contact they may have with their environment.

Employment Tests. Procedures used to measure (usually paper and pencil, oral, or performance) those skills and competencies possessed by persons who intend to work in a chosen occupation or trade.

Experience-Based Career Education. A program which provides students with carefully planned, supervised learning experiences gained from both outside and within-school learning activities. It attempts to bridge the gap between the classroom and the community.

Field Trip. Any plannned educational activity which takes groups of students outside the school for short durations and for experiences of limited intensity, to be distinguished from the "general field experience program" described previously.

Handicapping Conditions. Mental, physical, and/or psychological problems which may limit a student's success in a regular educational program.

Hearing Impaired. A hearing loss ranging from mild (hard of hearing) to profound (deaf), which interferes with the development of the communication process and results in failure to achieve full educational potential. A person shall be assigned to a program for the hearing impaired when the evaluation and Individualized Education Program indicate that such a program is appropriate, provided that the evaluation includes a report by an audiologist and otologist.

Homebound Instruction. A placement alternative for persons who are suffering from a mental or physical illness and whose attendance at school is not possible because of illness. Authorization for absence is prescribed by a licensed physician or a practitioner of the hearing arts.

Individualized Education Program (IEP). A summary document that outlines the appropriate education for every child identified as exceptional. It must include--

1. a statement of the child's present levels of educational performance,
2. a statement of annual goals, including short-term instructional objectives,
3. a statement of specific special education and related services to be provided and the extent to which the child will be able to participate in regular educational programs,
4. the projected dates for initiation and duration of services, and
5. appropriate objective criteria and evaluation procedures.

Individualized Instruction. A method of instruction which allows students to progress at their best rate of learning with the instructional materials and the activities tailored to meet the needs of individual students.

Interest. One's feelings, concerns, or curiosity towards something with a desire to learn more about it.

Internships. The development of occupational (professional) competence through practice, after theory education has been completed.

Interpersonal Relationship. The interaction between individuals and groups, or among individuals.

IQ Score. An intelligence quotient derived from an individually administered psychological test.

Job Application. A measure (usually in written form) used to collect data to be used in determining, among other things, the extent to which applicants meet predetermined standards for a work position.

Job Interview. A planned consultation or a face-to-face meeting between an interviewer and one or more individuals who are applying for a work position.

Learning Disability. A deficiency in the acquisition of basic learning skills, including but not limited to the ability to reason, think, read, write, spell, or to do mathematical calculations, as identified by an educational and psychological evaluation. Persons who have learning disorders which are primarily the result of visual, hearing, or other handicaps, or mental retardation, or emotional factors, or of environmental disadvantage are not learning disabled. The term learning disability does not exclude the possibility that a learning disabled person may also exhibit such conditions as brain damage or minimal brain dysfunction. A person shall be assigned to a program for the learning disabled when the evaluation and Individualized Education Program indicate that such a program is appropriate, provided that the evaluation clearly indicates that

the person can demonstrate average or above average intellectual functioning on an appropriate intelligence measure. The evaluation shall include an assessment of specific academic strengths and weaknesses.

Least Restrictive Environment. A basic principle of P.L. 94-142 under which handicapped students must be educated with nonhandicapped students to the maximum extent possible. In making a placement decision for each individual handicapped child, that specific child's physical, cognitive, and psychological needs must be taken into consideration when developing the Individualized Education Program.

Local Education Agency (LEA). This term is used to refer to an administrative arrangement designated to assume responsibility for providing public education for all pupils within its jurisdiction; (e.g., a school district).

Magnet School. A school specializing in a specific discipline thereby attracting students throughout the city who are interested in pursuing career choices related to an area of specialty.

Mainstreaming. The concept that handicapped children should be integrated with nonhandicapped children to the maximum extent possible. The essence of the "mainstreaming concept" is to provide handicapped children with an appropriate educational program in as "normal" or "regular" an environment as possible; the "most normal" being in regular classes. Each child's program must be determined on an individual basis, and programming recommendations are based upon a child's specific strengths and weaknesses.

Mentally Gifted. Outstanding intellectual and creative ability, the development of which requires special activities or services not ordinarily provided in the regular program. Persons shall be assigned to a program for the gifted when they have an IQ of 130 or higher. A limited number of persons with IQ scores lower than 130 may be admitted to gifted programs when other educational criteria in the person's profile strongly indicated gifted ability.

Mentally Retarded. Impaired mental development which adversely affects a person's educational performance. A mentally retarded person exhibits significantly impaired adaptive behavior in learning, maturation, and/or social adjustment as a result of subaverage intellectual functioning. The degree of retardation and the level of social and academic functioning, not deviant behavior patterns, shall be the factors in determining the individualized program. A person shall be assigned to a program for the mentally retarded when the evaluation and Individualized Education Program indicate such a program for the--

1. educable mentally retarded, unless his or her IQ score is lower than 80,

2. trainable mentally retarded, unless his or her IQ score is lower than 55,

3. severely and profoundly mentally retarded unless his or her adaptive behavior is so severely impaired that education programming is oriented to behaviors that may be considered absolutely basic to higher levels of skilled performance. Individuals with an IQ score lower than 30 may be considered for these programs and shall be evaluated by a physician prior to assignment.

Notice of Recommended Assignment (NORA). A written notice in the language or mode of communication normally used by the person to whom the notice is being given, which informs the parent or student of the student's special education program or placement, or change in program or placement.

Occupational Centers. Specialized schools designed to provide small-group vocational training to special needs youngsters.

Performance-Based Education. System in which students are expected to demonstrate their learned skills and are measured against business and industry standards.

Physically Handicapped. Orthopedic and/or other health impairments of sufficient magnitude to limit a person's classroom accommodation and educational performance. A person shall be assigned to a program for the physically handicapped when the evaluation and Individualized Education Program indicate that

such a program is appropriate provided that the evaluation includes reports from a physician and a certified public school psychologist.

Placement Tests. Procedure used to place persons in jobs.

Postsecondary Vocational Education. Education designed primarily for youth or adults who have completed high school and are available to pursue a full-time, one-or-two-year preparatory curriculum in for entering employment.

Preparatory Vocational Education. Education and training that preparatory to employment, such as programs provided in high school and others in postsecondary and adult programs that provide instruction leading to the initial employment of an individual.

Project Business. A practical business experience approach provided to eighth and ninth grade students for the purpose of relating information about the American business system.

Public Law 88-352. Civil Rights Act of 1964, Title VI relates to non-discrimination in federally assisted programs. It provides that no person in the United States shall, on the grounds of race, color or national origin be excluded from participation in or be subjected to discrimination under any program or activity receiving federal assistance.

Public Law 92-318. Federal law passed in 1972, Title IX of the Educational Amendments of 1972 extends from preschool through graduate school and protects students, professional staff, and support staff from sex discrimination.

Public Law 93-112, Section 504. The Rehabilitation Act of 1973. reaffirms every handicapped child's right to a free, appropriate education and opportunities to benefit from services equal to those provided for other individuals. In addition, colleges and postsecondary programs that receive federal funds may not discriminate against applicants on the basis of handicap, and all programs and services must be barrier-free.

Public Law 94-142. The Education for All Handicapped Children Act; defines a viable national standard for special education and related services for handicapped children.

Public Law 94-482. The Vocational Act Amendments of 1976 extends the Higher Education Act of 1956 and revises the Vocational Act of 1963. Among other functions, it assists persons in employment, supports youth opportunities, expands continuing education in colleges and universities, and supports resource materials-sharing programs.

Related Services. Transportation and such developmental, corrective, and other supportive services as are required to assist a handicapped child to benefit from special education.

Satellite Vocational Education Curriculum. A curriculum established, maintained, and administered by an area vocational-technical board in a participating school district facility as an integral part of the area vocational-technical school.

Sexism. Preferential or discriminatory treatment solely on the basis of sex.

Short-Term Instructional Objectives. Short-term instructional objectives are the learning tasks needed by a child to reach a certain educational goal. They should be stated in behavioral terms (can be objectively measured), and an "expected date of accomplishment" for each objective must be included.

Skills Center. A shared-time high school-level facility and program that provides vocational education to students who are available for study in preparation for entering the labor market. Students receive academic training at their comprehensive high school (or "home school") while attending the skills center on alternate days or weeks.

Socially and Emotionally Disturbed. A condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree: an inability to learn which cannot be explained by intellectual, sensory, or health factors; an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; inappropriate types of

behavior or feelings; a general pervasive mood of unhappiness or depression; or a tendency to develop physical symptoms, pains, or fears associated with personal or school problems. A person shall be assigned to a program for the socially and emotionally disturbed when the evaluation and Individualized Education Program indicate that such a program is appropriate, provided that the evaluation includes reports from a board-certified or approved psychiatrist.

Special Education Instructional Programs. A basic educational (planned) program adjusted to meet the educational needs of exceptional persons. Special Education Programs may be arranged in the following fashion:

1. Regular Programs. Regular programs do not qualify for special education funding but may meet the needs of certain exceptional persons. Instruction shall emphasize both subject content and development of special skills in accordance with the student's Individualized Education Program.

2. Itinerant Programs. Itinerant programs shall be designed:

a. for students enrolled in regular classes who are generally expected to spend 25 percent or less of their time with an itinerant special education teacher. The itinerant teacher travels from school to school and instructs students in the development of special skills in accordance with the student's Individualized Education Program.

b. for students who have multihandicapping conditions enrolled in a special education class and who are required to spend up to 25 percent of their time in supportive instruction in skill development in accordance with the student's Individualized Education Program. Instruction is provided on an individual or small-group basis by an itinerant special education teacher who travels from school to school.

3. Resource Room. Resource rooms shall be designed for students who are generally expected to spend 50 percent or less of their time with the special education teacher, either in individual or in small-group instruction. Instruction shall emphasize development of special skills in accordance with the student's Individualized Education Program rather than subject content. For the remainder of their time, students are assigned to regular education programs or to other types of special education programs.

4. Part-time Special Class. Part-time special classes shall be designed for students who are generally expected to spend 50 to 85 percent of their time with the special education teacher. Instruction shall emphsize both subject content and development of special skills in accordance with the student's Individualized Education Program. Up to 10 percent of the students time shall be spent in related activities as described under subsection (1) of this section. For the remaining time, students are released to participate in individual work experience, work training, or vocational education programs, while their special education teacher is assigned to instruct a second group of students or to perform other responsibilities.

5. Full-time Special Class. Full-time special classes shall be designed for students who are generally expected to spend 85 percent or more of their time with the special education teacher. Instruction shall emphasize both subject content and development of special skills in accordance with the student's Individualized Education Program. The remaining time shall be spent in related activities, such as art, music, physical education, industrial arts, and home economics, with emphasis on the concept of mainstreaming on an individual or group-assignment basis.

Speech and Language Impaired. Communication disorders of impaired language, voice, fluency, or articulation to such a degree that academic achievement is invariably affected and the condition is significantly handicapping to the affected person. A person shall be assigned to a program for the speech and language impaired when the screening by a speech clinician and the Individualized Education Program indicate that such a program is appropriate. Where appropriate, an evaluation by a certified public school psychologist or physician shall be performed.

Subject. A single unit of instruction within a course of study.

Subject Sequencing. A logical order of gaining knowledge about a specific subject, leading from basic to more complex information over two or more years by selecting related subjects by level.

Surrogate Parent. A volunteer who represents a handicapped person when decisions are to be made concerning educational

evaluation, placement, and program. Surrogate parents are assigned to handicapped preschool and school-aged persons who are wards of the state, or whose parents or guardians are unknown or unavailable. Surrogate parents are selected, trained, and assigned by the intermediate unit.

Supplementary Vocational Education. Education and training provided for employed or unemployed persons, designed to supplement existing skills and knowledge for the purpose of upgrading and updating these skills so the individuals might compete more effectively in the labor market or advance in their occupation.

Task. A specific job to be done, a given piece of work performed within an occupation.

Talented. Outstanding talent as identified by a team of educators and professionals competent in the areas of art, music, dance, photographic arts, or theater, the development of which requires special activities or services not ordinarily provided in the regular program. A person identified as talented shall be eligible to attend the Governor's School for the Arts.

Vemis (Vocational Education Management Information System). A collection system used in Pennsylvania to systematize over a thousand institutional sources of manpower development, eleven basic data subsystems and twenty-four different data collection forms.

Visually Impaired. A visual impairment which adversely affects a person's educational performance. A person shall be assigned to a program for the visually impaired when the evaluation and Individualized Education Program indicate that such a program is appropriate, provided that the evaluation includes an examination by an eye specialist and a written report of the nature and degree of the visual impairment.

Vocational Agriculture Education. Education designed to prepare an individual to enter or advance in production agriculture, agribusiness, renewable natural resources, agricultural mechanics, and environmental occupations.

Vocational Assessment Center. A location designed to provide students in middle and junior high schools an opportunity to explore and discover their interest in, and ability for the various vocational careers.

Vocational Business Education. Education designed to prepare an individual to enter or advance in an occupational field where success is largely dependent upon competency in accounting, clerical, data processing, or secretarial occupations and similar business pursuits.

Vocational Discipline. A course of instruction designed to train students for a particular career within the areas of Agriculture, Business Education, Health, Trade and Industrial Education, Distributive Education, and Technical Education.

Vocational Distributive Education. Education designed to meet the needs of persons who have entered or are preparing to enter a distributive occupation requiring competency in one or more of the functions of marketing and/or knowledge of products and services.

Vocational Education. Preapproved programs under public supervision and control that provide organized learning experiences designed to develop skills, knowledge, attitudes, and work habits in order to prepare individuals for entrance into and progress through various levels of employment in occupational fields including agriculture, business, distribution, health, gainful and useful home economics, and trades and industry,

1. Vocational Agriculture - Education designed to prepare an individual to enter or advance in production agriculture, agribusiness, renewable natural resources, agricultural mechanics and environmental occupations.

2. Vocational Business Education - Education designed to prepare an individual to enter or advance in an occupational field wherein success is largely dependent upon competency in accounting, clerical, data processing, or secretarial occupations and similar business pursuits.

3. Vocational Distributive Education - Education designed to meet the needs of persons who have entered or are preparing to enter a distributive occupation requiring competency in

one or more of the functions of marketing and knowledge of products and services.

4. Vocational Health Occupations Education - Education comprising subject matter and planned experience for preparing individuals to provide care and health services in support of the health professions.

5. Vocational Home Economics Education - Education that focuses on preparing pupils for the roles of homemaker or wage earner. The gainful program is designed to prepare a student for employment in an occupation which uses the knowledge, skills, and attitudes in the subject matter area of home economics. The useful program is designed to help an individual and family improve the home environment and quality of family life.

Vocational Education Advisory Council. A committee composed of representatives of the general public, including at least one representative from business, industry, and labor who are drawn together to provide advisory services to vocational educators on the world of work and provide a link to it for their students.

Vocational Guidance & Counseling. Method concerned with the problems and techniques involved in choosing an occupation and in becoming adjusted in it.

Vocational Industrial Education. Those forms of vocational education that fit for industrial pursuit. It includes occupational training for women and girls other than training for the vocation of homemaking. It also includes public and other service occupations. There are two general types of vocational industrial education programs defined for the purposes of this document:

1. Vocational Trade and Industrial Education - Education designed to develop manipulative skills and leadership abilities, acquire technical knowledge and related occupational information to prepare an individual for initial employment, upgrade skills, or retrain out-of-school youth and adult workers in trade, technical, and industrial occupations.

2. Industrial Arts Education - Those education programs (a) which pertain to the body of related subject

matter, or related courses organized for the development of understanding about all aspects of industry and technology, including learning experiences involving activities such as experimenting, designating, constructing, evaluating, and using tools, machines, materials, and processes; and (b) which assist individuals in the making of informed and meaningful occupational choices, or which prepare them for entry into advanced trade and industrial or technical education programs.

Vocational Library. A room or designated area equipped for providing technical training and theory.

Vocational Shop. A vocational room or area used for the purpose of providing skills training.

Vocational Student Organization. An integral part of each vocational program utilized to develop leadership competencies and positive attitudes toward fulfilling occupational, civic, social, and community responsibilities.

Vocational Student Organizations. Youth organizations that maximize educational experiences and learning opportunities by exposing the student to a variety of experiences similar to those in the chosen occupation. Planned classroom activities that may meet after school emphasize career planning, civic awareness, social competence, leadership ability, and occupational preparation related to the student's vocational course of study.

Vocational Teacher/Advisors. Instructors who possesses knowledge, skills, and experience in the occupation about which they are is teaching.

Work Habits. Job-related behavior which is expected on the job.

Work Programs. Planned educational activities designed to permit application in a realistic situation or background of the skills and knowledge previously learned.

SELECTED READINGS

Legislation And Legal Responsibility

Albright, L., and Phelps, L.A. "Teaching Special Needs Students: A New Challenge." Industrial Education, Vol. 66, October 1977, pgs. 27-28.

Ballard, J., and Zettel, J.J. "Fiscal Arrangements of Public Law 94-142." Exceptional Children, Vol. 44, February 1978, pgs. 333-337.

Bershoff, D. N., and Veltman, E. S. "Public Law 94-142: Legal Implications for the Education of Handicapped." Journal of Teacher Education, Vol. 29, No. 6, November/December 1978, pgs. 44-46.

Bork, G. R. K. "Passage of 504: Implications for Cooperative Education." Vol. 14, May 1978, pgs. 14-19.

Carpenter, R. L., and Robson, D. L. "P.L. 94-142: Perceived Knowledge Expectations, and Early Implementation," Journal of Special Education Vol. 13, Fall 1979, pgs. 307-314.

Cole Jr., R. W., and Dunn, R. "New Lease on Life for Education of the Handicapped: Ohio Copes with 94-142." Phi Delta Kappan, Vol. 59, September 1977, pgs. 3-6.

Daniels, J. H., and Walker, R. W "Handicapped and the Law." Agricultural Education Magazine, Vol. 47, May 1975, pgs. 251.

Dowling, R. J "Legal Remedies in Education and Employment." Volta Review Vol. 79, September 1977, pgs. 327-334.

"Educating All Disabled Children: A Practical Guide to P.L. 94-142." Exceptional Parent, Vol. 8, no. 4, August 1978, pgs. 3-6.

"The Education for All Handicapped Children Act of 1975: National Perspectives and Long Range Implications." Viewpoints, Vol. 43, No. 2, March 1977, pgs. 1-16.

"Education of the Handicapped Act: Special Regulations for Records of Handicapped Children." Inequality in Education, Vol. 22, July 1977, pgs. 98-101.

"Enforcing the Right to an 'Appropriate' Education: The Education for All Handicapped Children Act of 1975." Harvard Law Review, Vol. 92, March 1979, pgs. 1103-1127.

Erb, L., and Mercer, C. D. "Legislation for the Handicapped in Brief." NOLPE School Law Journal, Vol. 7, No. 2, 1977, pgs. 194-198.

Gazda, M., Editor. "Public Education and the Handicapped; Symposium." Journal of Research and Development in Education. Vol. 12, Summer 1979, pgs. 1-108.

Goodman, L. V. "Bill of Rights for the Handicapped." American Education, Vol. 12, July 1976, pgs. 6-8.

Harvey, J. "Legislative Intent and Progress." Exceptional Children, Vol. 44, January 1978, pgs. 234-237.

"Initial Impact of PL 94-142, the New Federal Special Education Law; Symposium." Journal of Education, Vol. 161, Summer 1979, pgs. 3-8.

Lax, B. and Foley, K. E. "Lawsuit Re: Legal Rights; The Retarded v. the People." Mental Retardation, Vol. 15, June 1977, pgs 3-8.

"Learning Disability: Role of the School; Symposium." Educational Leadership. Vol. 32, May 1975, pgs. 499-519.

"Learning Disabilities; symposium." Today's Education, Vol. 66, November/December 1977, pgs. 36-48.

"Managerial Aspects of Public Law 94-142." Exceptional Children, Vol. 44, March 1979, pgs. 457-462.

McCarthy, M. M., and Thomas, S. B. "Right to an Education: New Trends Emerging from Special Education Litigation." NOLPE School Law Journal, Vol. 1, 1977, pgs. 76-87.

National Association of State Directors of Special Education. "Analysis of P.L. 94-142: The Education for All Handicapped Children Act of 1975." Yearbook of Special Education. Vol. 4, 1978-79, pgs. 3-29.

National Education Association. Office of Government Relations and Citizenship. "What the Laws and Regulations Require." Today's Education. Vol. 66, November/December 1977, pgs. 54-56

Orelove, F. P. "Administering Education for the Severely Handicapped After P.L. 94-142." Phi Delta Kappan, Vol. 59, June 1978, pgs. 699-702.

Ortman, G. "Documentation Procedures for P.L. 94-142." Education and Training of the Mentally Retarded Vol. 13, April 1978, pgs. 236-246.

Parks, A. Lee, and Rousseau, Marilyn R. The Public Law Supporting Mainstreaming: A Guide for Teachers and Parents. Austin, TX: Learning Concepts, 1977

Phelps, L. A., and Halloran, W. D. "Assurance for Handicapped Learners; Education for All Handicapped Children Act." American Vocational Journal, Vol. 51, November 1976, pgs. 36-37.

"Public Law 94-142 and Section 504: What They Say About Rights and Protections." Exceptional Children, Vol. 44, November 1977, pgs 177-184.

Sapon-Shevin, N. "Mainstreaming: Implementing the Spirit of the Law." Journal of Negro Education, Vol. 48, Summer 1979, pgs. 364-381.

Savage, David G. Educating All the Handicapped: What the Laws Say and What Schools are Doing. Arlington, VA: National School Public Relations Association, 1977.

Tindall, L. W. "Education for All Handicapped Persons: A Mandate for the New Year." American Vocational Journal, Vol. 53, January 1978, pgs. 26-29

United States Department of Health, Education and Welfare. Progress Toward a Free Appropriate Public Education: A Report to Congress on the Implementation of Public Law 94-142: The Education for All Handicapped Children Act. Washington, DC, U.S. Office of Education, January 1979.

United States Senate. Committe on Human Resources. Subcomittee on the Handicapped. Education for All Handicapped Children Act, 1978: Hearing, May 13, 1978, on examination of the implementation of the Education for All Handicapped Children Act of 1975 (Public Law 94-142). 95th Congress, 2nd session, 1978.

"Zero Reject: The Public Law Regarding Handicapped Children..' Curriculum Review, Vol. 17, No.4, October 1978, pgs. 251-253.

Zettel, J. J., and Sbeson, A. "Litigation, Law, and the Handicapped." School Media Ouarterly Vol. 6, Summer 1978, pgs. 234-245.

Arena, John. How to Write an IEP. San Rafael, CA: Academic Therapy Publications, 1978

Asher, J., and Asher, J. "How to Accommodate Workers in Wheelchairs." Job Safety and Health, Vol. 4, October 1976, pgs. 30-35.

"Barrier Free Site Design." Yearbook of Special Education, Vol. 3, 1977-1978, pgs. 301-333.

Birch, Jack W., and Johnstone, B. Kenneth. Designing Schools and Schooling for the Handicapped: A Guide to the Dynamic Interaction of Space, Instructional Materials, Facilities, Educational Objectives and Teaching Methods. Springfield, IL: C. C. Thomas, 1975.

Cooper, N. E. "Vocational Reintegration of Handicapped Workers with Assistive Devices." International Labour Review, Vol. 115, May/June 1977, pgs. 343-352.

Corley, Joel. "Breaking Down the Barriers " Florida Vocational Journal, Vol. 3, No. 5, December 1977/January 1978, pgs. 20-23.

Dahl, Peter R., and Lipe, Dewey. Overcoming Barriers to Mainstreaming: A Problem-Solving Approach./Final Report. Palo Alto, CA: American Institutes for Research in the Behavioral Sciences, 1978.

"Education for the Handicapped; Individualized Education Programs of PL 94-142." Education Digest, Vol. 43, March 1978, pgs. 12-15.

Frankel, F. "Individualizing Schedules of Instruction for School Children with Learning and Behavior Problems." Psychology in the Schools, Vol. 16, April 1979, pgs. 270-279.

Fusco, Carol B. Individually Prescribed Program of Instruction for Pupils Who Are Orthopedically Handicapped. Columbia: South Carolina State Department of Education, 1977.

Godla, L. "Program Changes to Accommodate Handicapped Students." American Vocational Journal, Vol. 53, March 1978, pgs. 29-32.

Hartwell, L. K. "Modifying Course Content for Mildly Handicapped Students at the Secondary Level." Teaching Exceptional Children, Vol. 12, Fall 1979, pgs. 28-32.

Hedbring, C., and Holmes, C. "Getting It Together with PL 94-142: The IEP in the Classroom; Individualized Education Programs." Education and Training of the Mentally Retarded, Vol 12, October 1977, pgs. 212-224.

Heron, T. E. "Maintaining the Mainstreamed Child in the Regular Classroom: The Decision-Making Process." Journal of Learning Disabilities, Vol. 11, April 1978, pgs. 210-216.

Hudson, Floyd G., and Hudson, Graham S. "An Approach to Operationalizing the IEP." Learning Disability Quarterly, Vol. 1, Winter 1978, pgs. 13-30.

"IEP and Personnel Preparation." American Education, Vol. 13, November 1977, pgs. 6-8.

Kaye, N. L., and Aserlind, R. "IEP: The Ultimate Process." Journal of Special Education, Vol. 13, Summer 1979, pgs. 137-143.

McKinney, L. A. "Teaching Handicapped Learners." Voc Ed, Vol. 53, October 1978, pgs. 11.

Musgrave, Ray H. Individualized Instruction: Teaching Strategies Focusing on the Learner. Boston: Allyn and Bacon, 1975.

Neff, Herbert, and Pilch, Judith. Teaching Handicapped Children Easily: A Manual for the Average Classroom Teacher Without Specialized Training. Springfield, IL: C. C. Thomas, 1976.

Torres, S., ed. A Primer on Individualized Programs for Handicapped Children. Reston, VA: Foundation for Exceptional Children, 1977.

"Proposed System for the Identification, Assessment, and Evaluation of Special Needs Learners." Journal of Industrial Teacher Education, Vol. 14, No. 3, Spring 1977, Pgs. 19-35.

"Signing." Journal of Physical Education and Recreation, Vol. 49, No. 5, May 1978, pgs. 19-21.

Sirvis, B. "Developing IEP's for Physically Handicapped Students: A Transdisciplinary Viewpoint." Teaching Exceptional Children, Vol. 10, Spring 1978, pgs. 78-82.

"Typing for the Handicapped: Methods and Materials." Business Education World, Vol. 59, No. 1, September/October 1978, pgs. 3-5.

Walker, D. L. "IEP." Educating the Visually Handicapped, Vol. 9, Fall 1977, pgs. 95-96.

Wargo, W. D. "Teaching Special Needs Students; Individualizing Instruction." Industrial Education, Vol. 66, November 1977, pg. 20.

Weisgerber, R. A. "Individualizing for the Handicapped Child in the Regular Classroom." Educational Technology, Vol. 14, November 1974, pgs. 33-35.

Windham Southeast Supervisory Union. Building Needs for the Handicapped. Washington, DC: Bureau of Elementary and Secondary Education, U.S. Department of Health, Education and Welfare, 1975.

Yoshida, R. K. et al. "Evaluation of Education for the Handicapped. Individualized Education Program." Phi Delta Kappan, Vol. 59, September 1977, pgs. 59-60.

Zimmerman, M. D. "Technology for the Handicapped." Machine Design, Vol. 50, November 9, 1978, pgs. 24-26.

Mainstreaming-General Information

Brolin, Donn E. Vocational Preparation of Retarded Citizens. Columbus, OH: Charles E. Merrill Publishing Co., 1976.

Clark, Donald. Making Mainstreaming Work: A Handbook for Vocational Administrators. College Station, TX: Vocational Special Needs Program, College of Education, Texas A and M University, 1979.

Gazda, G. M. et al., ed. "Public Education and the Handicapped; symposium," Journal of Research and Development in Education, Vol. 12, Summer 1979, pgs. 1-108.

Gearheart, Bill R., and Weishahn, Mel W. The Handicapped Child in the Regular Classroom. Saint Louis: C.V. Mosby, 1976.

Gugerty, J. "Discovering What Works Best in Educating Handicapped Students." American Vocational Journal, Vol. 53, April 1978, pgs. 34-36

Hartley, N. "Channeling Students into the Mainstream." VocEd, Vol. 53, October 1978, pgs. 30-42.

Harvey, J., and Siantz, J. "Public Education and the Handicapped." Journal of Research and Development in Education, Vol. 12, Summer 1979, pgs. 1-9.

Klein, N. K. "Least Restrictive Alternative: An Educational Analysis." Education and Training of the Mentally Retarded, Vol. 13, February 1978, pgs. 102-115.

Mainstreaming: Origins and Implications. Reston, VA: Council for Exceptional Children.

"Mainstream Update: Planning, Problems and Programs: symposium." Exceptional Parent, Vol. 9, August 1979, pgs. 1-32.

Martin, E. W. "Some Thoughts on Mainstreaming." Exceptional Children, Vol. 41, November 1974, pgs. 150-153.

Massie, D "Update on Education of the Handicapped." Today's Education, Vol. 67, September/October 1978, pgs. 60-62.

Paul, James L. et al. Mainstreaming: A Practical Guide. Syracuse NY: Syracuse University Press, 1977.

Reger, R. "What Does Mainstreaming Mean?" Journal of Learning Disabilities, Vol. 7, October 1974, pgs. 513-515.

Reynolds, M. C., ed. Futures of Education for Exceptional Student: Emerging Structures. Reston, VA: The Council for Exceptional Children, 1978.

Roubirek, D.L "Will Mainstreaming Fit?" Educational Leadership, Vol. 35, February 1978, pgs. 410-412.

Sarandoulias, L. "Getting Handicapped Students into the Mainstream." American Vocational Journal, Vol. 50, May 1975, pgs. 22-25.

Mainstreaming Students With Physical Handicaps

Barraga, N. Visual Handicaps and Learning: A Developmental Approach. Belmont, CA: Wadsworth Publishing Co., 1976.

Bazar, A. R. "Grip Strength of the Cerebral Palsied." Human Factors, Vol. 20, December 1978, pgs. 741-744.

Beckman, C. "Mainstreaming: Hearing-Impaired Students." Journal of Home Economics, Vol. 70, March 1978, pgs. 34-38.

Bigge, June J., and O'Donnell, Patrick A. Teaching Individuals with Physical and Multiple Disabilities. Columbus, OH: Charles E. Merrill, 1976.

Davis, K., and Tindall, L. W. "It's About Time Physical Disabilities Came Out in the Open!" Yearbook of Special Education, Vol. 4, 1978-79, pgs. 275-312.

DeSalle, J. M , and Ptasnik, J. "Some Problems and Solutions: High School Mainstreaming of the Hearing Impaired." American Annals of the Deaf, Vol. 121, December 1976, pgs. 533-536.

Edgington, Dorothy. The Physically Handicapped Child in Your Classroom: A Handbook for Teachers. Springfield, IL: C. C. Thomas, 1976.

"Educational Problems of Hearing-Impaired Students." Teaching at a Distance, No. 8, March 1977, pgs. 10-18.

Lauder, C. E. et al. "Educational Placement of Children with Spinal Fifida." Exceptional Children, Vol. 45, March 1979, pgs. 432-437.

"Management of Some Physical Problems in the Classroom; Children with Motor Difficulties." Yearbook of Special Education, Vol 3, 1977-78, pgs. 9-11.

Mullins, June B. A Teacher's Guide to Management of Physically Handicapped Students. Springfield, IL: C. C. Thomas, 1979.

Orlansky, Michael D. Mainstreaming the Visually Impaired Child: Blind and Partially Sighted Students in the Regular Classroom. Austin, TX: Learning Concepts, 1977.

Porter, E. et al. "Mainstreaming; Visually Handicapped Students." Journal of Home Economics, Vol. 70, March 1978, pgs. 34-38.

Reich, C. et al. "Integration of Hearning Impaired Children in Regular Classrooms." American Annals of the Deaf, Vol. 122, December 1977, pgs. 534-543.

Royer, Donald. "Anatomical and Physiological Profile of Physically Handicapped Children." An unpublished Ph.D. dissertation, Florida State University, 1976.

School, Geraldine, and Schnur, Ronald. Measure of Psychological, Vocational and Educational Functioning in the Blind and Visually Handicapped. New York: American Foundation for the Blind, 1976.

Schwartz, Stuart E. Characteristics of Handicapped Students. Gainesville, FL: University of Florida College of Education, 1977.

Stewart, L. G. "Hearing-Impaired/Developmentally Disabled Persons in the United States: Definitions, Causes, Effects, and Prevalence Estimates." American Annals of the Deaf, Vol. 123, June 1978, pgs. 488-495.

Walthal, Joe E. A Handbook of Medical, Educational and Psychological Information for Teachers of Physically Handicapped Children. Springfield, IL: C. C. Thomas, 1977.

Mainstreaming Students With Mental Disorders

Baroff, G S. Mental Retardation. Arlington, TX: NARC Publication, 1976.

Calhoun Jr., G "Hyperactive, Emotionally Disturbed and Hyperkinetic Learning Disabilities: A Challenge for the Regular Classroom." Adolescence, Vol. 13, Summer 1978, pgs. 355-358

Deno, E. Educating Children with Emotional, Learning and Behavior Problems. Minneapolis: National Support Systems Project, 1978.

McDowell, R. L., and Brown, G. B. "Emotionally Disturbed Adolescent: Development of Program Alternatives in Secondary Education." Focus on Exceptional Children, Vol. 10, September 1978, pgs. 1-15.

Mulhern, T., and Bullard, K. "In Order to Pass as Mentally Retarded: Behavioral Features ASsociated with Mental Retardation." Mental Retardation, Vol 16, April 1978 pgs. 171-173.

Schwartz, Stuart E. Characteristics of Handicapped Students. Gainesville, FL: University of Florida College of Education, 1977.

Vocational Education Services For The Handicapped

Abilities, Inc. Employment of the Physically Handicapped in a Competitive Industrial Environment. Washington, DC: Vocational Rehabilitation Administration U.S Department of Health, Education and Welfare, 1966.

Bowser, S. E., and Robinson, E. R. "Needs Assessment: A Study of Vocationally Related Needs for Secondary Special Education." Educational Technology, Vol. 17, November 1977, pgs. 43-46.

Brolin, E. E., Vocational Preparation of Retarded Citizens. Columbus, OH: Charles E. Merrill, 1976.

Buontempo, Gregory, et al. Vocational Education for the Handicapped; Assistance in Initiating or Strengthening Vocational Programs for Handicapped Youth. Trenton, NJ: State Department of Education,1974.

Butte County Superintendent of Schools. Work-Study Program for Handicapped Children. Final Report. Oroville, CA: Butte County Superintendent of Schools, 1974.

Carpenter, R. L., and Robson, D. L. "Potential Effect of New Special Education Legislation on the Field of Vocational Education." Journal of Industrial Teacher Education, Vol. 15, Winter 1978, pgs. 50-54

Cegelka, W. J. Review of Work-Study Programs for the M. R. Arlington, TX: NARC Publications, 1976.

Clayton, I P. "Work-Experience Program at the Maryland School for the Blind." Education of the Visually Handicapped, Vol.9, Fall 1977, pgs. 91-94.

Clennon, S. "Training Special Students for Employment." Teaching Exceptional Children, Vol. 7, Spring 1975, pgs. 106-107.

Duquesne University. A Task Analysis Approach to Prevocational and Vocational Training for the Handicapped. Pittsburgh, Pennsylvania: Duquesne University, School of Education, 1975.

Duran, P. "Site for Sore Eyes; Computer-Aided Vocational and Educational Services to the Handicapped." Computer Decisions, Vol. 8, October 1976, pg. 34.

EPI-HAB Phoenix, Inc. A Project to Determine the Employability of Epileptics. Final Report. Phoenix, AZ: EPI-HAB Phoenix, Inc., 1971.

Flanagan, W. Malcom, And Schoepke, JoAnn M. Lifelong Learning and Career Development Needs of the Severely Handicapped. Working Paper No. 1. Columbia, MI: University of Missouri Department of Counseling and Personnel Services, 1978.

Godla, L. "Program Changes to Accommodate Handicapped Students." American Vocational Journal, Vol. 53, March 1978, 29-32.

Jackson, J. R. "Work Experience for the Handicapped." Phi Delta Kappan, Vol. 60, October 1978, pgs. 128

Jernberg, Donald E. Special Vocational Program for Handicapped Youth and Adults. rev. ed. Salina, KS: Salina Area Vocational-Technical School, 1975.

Kroger, W. "Disabled Workers Are No Handicap to Business." Nation's Business, Vol. 67, May 1979, pgs. 110-112.

Linthicum, Somervel. "Technical Training for the Severely Disabled: A Model." Rehabilitation Literature, Vol. 38, November/December 1977, pgs. 373-375.

Lombard, T. J., and Schultz, L. "Prevocational Program for Secondary TMR Students: The Canby Project." Journal for Special Educators of the Mentally Retarded, Vol. 14, pgs. 173-178.

Love, Don. Vocational Education and the Physically Handicapped--Voices and Views. South Pasadena, CA: Hoskins and Associates, 1971.

Miller, Ron, and Wood, Jay M. "Handicapped Students Learn Basic Skills of Yard, Garden and Home Maintenance." American Vocational Journal, Vol. 45, No.8, November 1970, pgs. 53-54.

Neely, M A., and Kosier, M. W. "Physically Impaired Students and the Vocational Exploration Group." Vocational Guidance Quarterly, Vol. 26, Spetember 1977, pgs. 37-44.

North Carolina Department of Public Instruction. Handbook for Evaluating Disadvantaged and Handicapped Students for Planning Occupational Education Programs. Raleigh, NC: North Carolina State Board of Education, 1970.

O'Neil, Lawrence P. "Vocational Education of the Handicapped. Is a Cooperative Enterprise." American Vocational Journal, Vol. 45, April 1970, pgs 22-23.

Phelps, L. Allen, and Lutz, Ronald J. Career Exploration and Preparation for the Special Needs Learners. Boston: Allyn and Bacon, 1978.

"P. L. 94-142 and Vocational Education: Parallel, Picture and Prophecy." Journal of Career Education, Vol. 5, September 1978, pgs. 53-62.

Mossman, Marshall, L., editor. A Program for Training the Student with Special Needs. Lansing MI: Michigan State Department of Education, 1972.

Pucel, David J., and Knaack, William C. Individualizing Vocational and Technical Instruction. Columbus, OH: Charles E. Merrill, 1975.

Razeghi, J. A., and Davis, S. "Federal Mandates for the Handicapped: Vocational Education Opportunity and Employment." Exceptional Children, Vol. 45, February 1979, pgs. 353-359.

Means, Howard and Hammett, Ron, eds. Rehabilitation Programs in the Public Schools; A Handbook for Counselors and Supervisors. Washington, D. C.: Rehabilitation Services Administration (DHEW), 1968.

Retzlaff, Walter F. "Project Workers: Videotaping Work Stations in Industry." Teaching Exceptional Children, Vol. 5, No. 3, Spring 1973, pgs. 135-137.

Rose, Pearl H. Development of a Plan for Providing Career Information for Handicapped Students. An Analysis of Occupational Descriptions for the Handicapped. Final Report. Olympia, WA: Washington Research Coordinating Unit for Vocational Education, 1976.

Rumble, R. R. "Vocational Education for the Handicapped." Clearing House, Vol. 52, November 1978, pgs. 132-135.

Scelfo, J. L., and Micali, J. "Vocation Program for the Trainable Mentally Retarded Students." Education, Vol. 98, Summer 1978, pgs. 460-461.

Scholl, Geralding, and Schnur, Ronald. Measure of Psychological, Vocational and Educational Functioning in the Blind and Visually Handicapped. New York: American Foundation for the Blind, 1976.

Shworles, Thomas R. Development of Modern Vocational Objectives for Severely Disabled Homebound Persons: Remote Computer Programming, Microfilm Equipment Operations, and Data Entry Processes: A Final Report. Washington, D.C.: George Washington University Rehabil tation Research and Training Center, 1973.

Urban, Stanley J., and Thomas Tsusi, eds. The Special Needs Student in Vocational Education, New York: MSS Information, 1974.

Stashower, G. "Mainstreaming in the Work World; Vocational Programs in Westport, Conn." American Education, Vol. 12, June 1976, pgs. 9-13.

Stodden, R. A., "Personal Behaviors Contributing to the Employability of the Special Needs Adolescents." Special Children, Vol. 4, Fall 1977, pgs.27-31.

Turner, K. G., and Bayne, G. K. "Kentucky Assesses the Vocational Education Needs of the Disadvantaged and Handicapped." Journal of Industrial Teacher Education, Vol. 16, Summer 1979, pgs. 35-45.

Wagner, Judith. "They Are (Handicapped) Police Technicians." Worklife, Vol. 1, No. 1, January 1976, pgs. 7-11.

Watson, Margaret. "Micrographics: Vocational Training and Placement." Rehabilitation Counseling Bulletin, Vol. 18, No. 4, June 1975, pgs. 259-263

Weisenstein, G. R. "Barriers to Employability of the Handicapped: Some Educational Implications." Journal of Research and Development in Education, Vol. 12, Summer 1979, pgs. 57-70.

Weisenstein, G R. "Vocational Education's Contribution in the Career Development of Retarded Individuals." Education and Training of the Mentally Retarded, Vol. 12, April 1977, pgs. 158-160.

Vocational Education for Handicapped Persons: Handbook for Program Implementation. Washington, DC: U.S. Office of Education, Division of Vocational and Technical Education, 1969. (ERIC No. ED 032 695.)

Altfest, Myra, ed. Vocational Education for Special Needs Students: A Teacher's Handbook. Fort Collins: Department of Vocational Education, Colorado State Universtiy, 1975.

Serving The Handicapped In Agricultural Education

Bobbitt, F. "Mainstreaming Disadvantaged and Handicapped Students." Agricultural Education Magazine, Vol. 47, May 1975, pg. 250.

Daniels, J. J., and Walker, R. W. "Handicapped and the Law," Agriculutral Education Magazine, Vol. 47, May 1975, pg. 251.

Facilitating Instruction for the Handicapped." Agricultural Education, Vol. 50, No. 1, July 1977, pg. 17.

Parrish, Linda Hudson. "Identification of Prerequisite Competencies Needed by Handicapped Students for Successful Entry into a Vocational Agriculture Program." An unpublished doctoral dissertation, Texas A & M University, 1978.

"Teaching the Disadvantaged and Handicapped; symposium." Agricultural Education Magazine, Vol. 47, May 1975, pgs. 243-257.

Serving The Handicapped In Home Economics

Akkerman, C., and Clark, C. F. "Field Experience: Working with the Visually Handicapped." Education of the Visually Handicapped, Vol. 10, Fall 1978, pg. 94

Beckman, C. "Mainstreaming; Hearing-Impaired Students." Journal of Home Economics, Vol. 70, March 1978, pgs. 34-38.

Cobe, P. "Teaching without Barriers." Forecast for Home Economics, Vol. 24, October 1978, pgs. 46.

Light, H. K. "Meeting the Needs of Families with Handicapped Children." Journal of Home Economics, Vol. 71, Fall 1979, pgs. 26-30.

Redick, Sharon S. The Physically Handicapped Student in the Regular Home Economics Classroom: A Guide for Teaching Grooming and Clothing. Danville, IL: Interstate, 1976.

The Physically Handicapped Student in the Regular Home Economics Classroom: A Guide for Teaching Housing and Home Care. Danville, IL: Interstate, 1976.

The Physically Handicapped Student in the Regular Home Economics Classroom: Teaching Nutrition and Foods. Danville, IL: Interstate, 1976.

Roberts, J., and Norris, C. "Preservice Teachers Learn from Special Students." Journal of Home Economics, Vol. 71, Spring 1979, pgs. 48-50.

Spencer, J., and Lohman, J. "Mainstreaming the Handicapped in Home Economics." Forecast for Home Economics Vol. 23, October 1977, pg. 66.

Swinney, Sandra Neese. "Identification of Prerequisite Skills Needed by Handicapped Students Entering Vocational Homemaking." An unpublished doctoral dissertation, Texas A & M University, 1978.

Whiteford, E. B., and Anderson, D. H. "Mainstreaming of Special Needs Students: Home Ec Teachers Are Coping." American Vocational Journal, Vol. 52, May 1977, pgs. 42-44.

Yuill, R. D., and Bennett, M. "Life Skill Orientation for EMR Students." School Shop, Vol. 38, November 1978, pgs. 35-37.

Davis, R. E. "Mainstreaming Special Needs Students in DE Classes." Business Education Forum, Vol. 33, February 1979, pg. 28.

Garrison, L. L. "Are You Ready for Mainstreaming?" Business Education Forum, Vol. 32, January 1978, pgs. 9-10.

Goodfriend, A. B. "Opening the Office Door for the Handicapped Student." Journal of Business Education, Vol. 54, May 1979, pgs. 347-348.

"Mainstreaming. Exceptional Students in the Typewriting Program." Business Education World, Vol. 58, No. 1, September/October 1977, pgs. 11,3).

McWilliams, Joseph Michael. "Current Practices of Teaching the Handicapped and Disadvantaged Low-Achievers in Business and Office Education and in Business Education." An unpublished doctoral dissertation, University of Cincinnati, 1979.

Plummer, L. "Working with a One-Handed Typist." Journal of Business Education, Vol. 54, May 1979, pgs. 347-348.

Ruffin, S. M. "Teaching Business Subjects to Special Needs Students." Journal of Business Education, Vol. 55, October 1979, pgs. 16-21.

"Typing for the Handicapped: Methods and Materials." Business Education World, Vol. 59, No. 1, September/October 1978, 3-5.

Yelverton, S. "Business Education and the 1976 Education Amendments." Business Education Forum, Vol. 32, May 1978, pgs. 38-39.

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Kent, C. N. "Mainstreaming in the Shop Class." Industrial Education, Vol. 66, April 1977, pgs. 24-26.

Koble, Ronald L. "Educating the Handicapped in Industrial Arts Education." Man/Society/Technology, Vol. 37, No. 6, March 1978, pgs. 10-12.

Lough, Ronald. "Industrial Arts Evaluation Forms." Industrial Arts and Vocational Education, Vol. 58, No. 5, May 1969, pgs. 54.

Lundy, L. L. "I.A. Teachers Learn to Teach the Handicapped." Man/Society/Technology, Vol. 36, January 1977, pgs. 106-107.

Lutz, Ronald J., and Pearson, Virginia L. "Teaching Safety to the Special Needs Learner." Industrial Education, Vol. 67 No. 2, February 1978, pgs. 20, 22-24, 26.

Miller, P. W. "Industrial Arts: An Education for the Visually Impaired." Man/Society/Technology, Vol. 38, September/October 1978, pgs. 8-11.

Miller, S. E. "Make Them Feel Like Somebody! A Hoola Hoop Unit Did." Teaching Exceptional Children, Vol. 11, Summer 1979, pgs. 149-152

O'Brien, T. "Tips for Teaching Students with Exceptional Educational Needs." Industrial Education, Vol. 67, January 1978, pgs. 25.

O'Gorman, E. J. "Blind Boy in My Metal Shop?" School Shop, Vol. 37, January 1978, pgs. 38-39.

Razeghi, J. A., and Halloran, W. D. "New Picture of Vocational Education for the Employment of the Handicapped." School Shop, Vol. 37, April 1978, pgs. 50-53.

Ruffino, C. R., and Canterbury, C. E. "Visually Handicapped in the IA Environment." School Shop, Vol. 37, April 1978, pgs. 70-71.

Spewock, M. A. "Color Cues Help EMR Mainstreaming; Production of a Model Airplane." School Shop, Vol. 39, November 1979, pgs. 38.

Steeb, R. V. "IA and the '76 Education Amendments." School Shop, Vol. 36, February 1977, pgs. 21-22.

Serving The Handicapped In Industrial Education

Andre, S. M. "Assembly Line for Multiple Ability Levels." School Shop, Vol. 38, October 1978, pgs. 53.

Bender, M. "Least Restrictive Place for EMRs." School Shop, Vol. 37, April 1978, pgs. 63-65.

Bies, J. D. "Strategies for Special Needs Teaching." School Shop, Vol. 38, May 1979, pgs. 19-20.

Buffer, James J. Review and Synthesis of Research on Industrial Arts for Students with Special Needs. Columbus, OH: Center for Vocational and Technical Education, The Ohio State University, 1973.

D'Amore, A. "Mainstreaming: Implications For the Industrial Education Teacher." Man/Society/Technology, Vol. 39, September/October, 1979, pgs. 10-12.

Davidson, Jerry Preston. "Competencies Needed by Students Entering Automobile Mechnanics Programs in Texas Secondary Schools with Emphasis on Achievement Expectations for the Handicapped." An unpublished doctoral dissertation, Texas A & M University, 1979.

Dugger, W. E. Jr. "Participation of Special Needs Students in Industrial Arts." Man/Society/Technology, Vol. 36, March 1977, pgs. 180-187.

Gardner, D., and Cowan, G. J. "Technical Terms and Special Needs." School Shop, Vol. 37, May 1978, pgs. 38-39.

Good, J. E. "I. A. Included in New Vocational Education Legislation." Man/Society/Technology, Vol. 36, January 1977, pgs. 102-103.

Hull, M. E., and Eddy, W. "Teaching Special Needs Students; Instructional Materials." Industrial Education, Vol. 66, November 1977, pgs. 21-22.

"Industrial Arts and the Handicapped." Florida Vocational Journal, Vol. 3, No. 1, July/August 1977, pgs. 27-28.

"Industrial Education and the Special Needs Student; Symposium." School Shop, Vol. 37, April 1978, pgs. 49-90.

"Industrial Arts in Federal Legislation: A Perspective." Man/Society/Technology, Vol. 35, November 1975, pgs. 36-39.

Kelsey, D. N., and Waite, W. "Reality Revisited; IA and P. L. 94-142." School Shop, Vol. 38, June 1979, pgs. 17-18.

Sullivan, J. A. "Who Are the Special Needs Students and How Can Special Education and Industrial Teacher Education Work Together and Help Them?" Journal of Industrial Teacher Education, Vol. 15, Winter 1978, pgs. 42-49.

Phelps, L. A., and Albright, L., eds. "Teaching Special Needs Students," Industrial Education, Vol.66, Oct; 20-22, Nov; 26, Dec 1977; pg. 20, Feb; 16, Mar; 24-26, Apr 1978.

"Teaching Special Needs Students' Individualizing Instruction." Industrial Education, Vol.66, November 1977, pgs. 20.

Wargo, W. D. "Prevocational Industrial Arts for Handicapped Boys and Girls." American Vocational Journal, Vol. 53, January 1978, pgs. 94-96.

Worall, J. D., and Mrowka, L. "Industrial Arts with Modifications." School Shop, Vol. 37, April 1978, pgs. 90.